



City of Norfolk

Department of Public Works

NORFOLK, VIRGINIA

PARKDALE CHANNEL IMPROVEMENTS

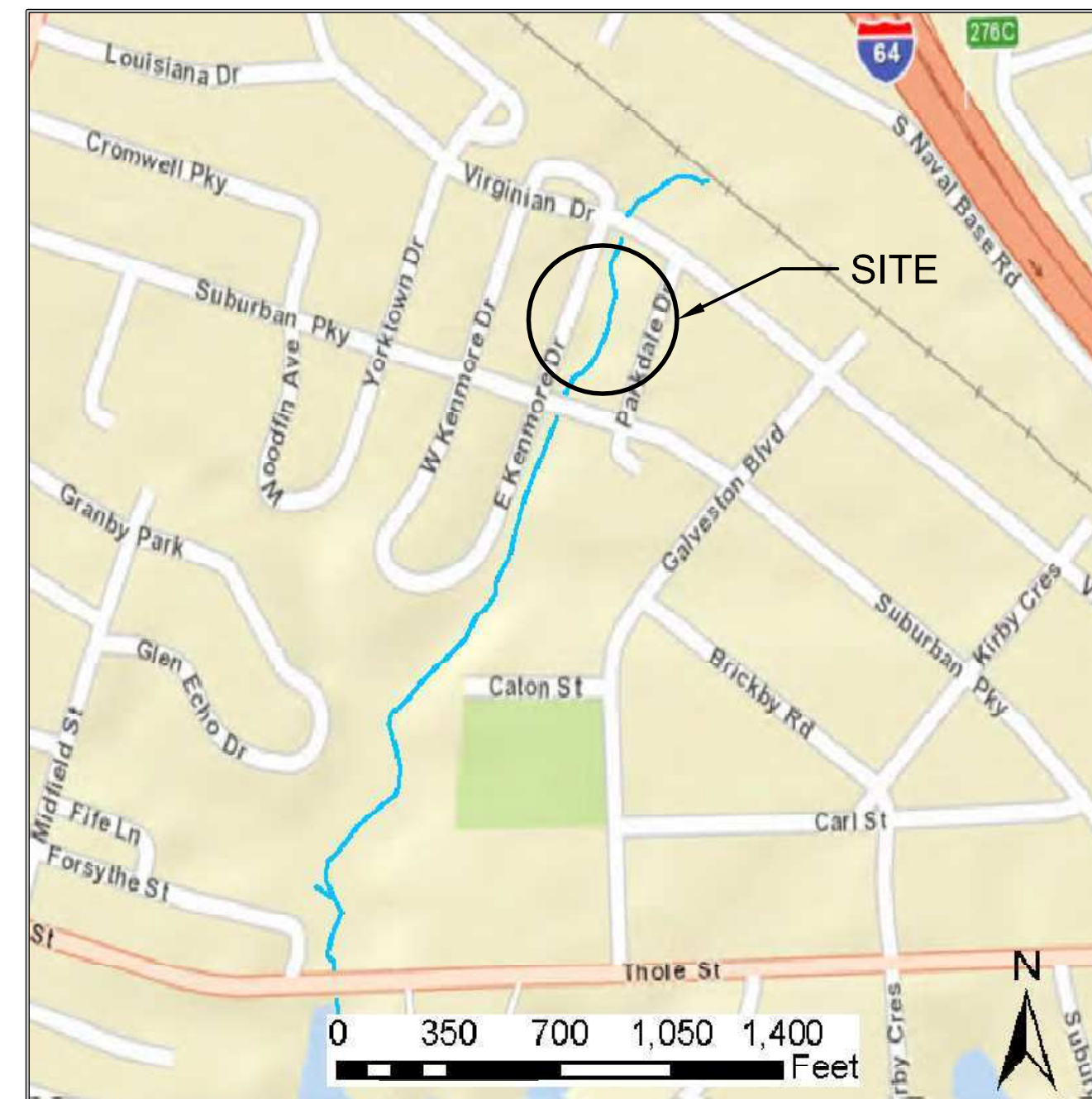
NOVEMBER 2015 SITE PLAN #15-0011

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NOTES:

1. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF PROPERTY ON OR ADJACENT TO IMPROVEMENTS SITE, THIRTY (30) DAYS PRIOR TO THE COMMENCEMENT OF WORK, UNLESS OTHERWISE DIRECTED BY THE CITY. CONSTRUCTION WITHIN EASEMENT OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN A SUSPENSION OF WORK. DOOR HANGERS MUST BE PLACED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AND MUST INCLUDE A 24 HOUR CONTACT PHONE NUMBER FOR EMERGENCIES. UPDATES MUST BE PROVIDED TO RESIDENTS AND BUSINESSES ON A BI-WEEKLY OR MONTHLY BASIS FOR BUSINESS OR RESIDENTS WITHIN 100 FT OF THE CONSTRUCTION ZONE WHO WILL BE AFFECTED BY ACCESS RESTRICTIONS, NOISE, DIRT AND DUST, USE OF PROPERTY DIRECTLY ADJACENT TO THEM, ETC.
2. CONTRACTOR IS TO INSTALL ALL UTILITIES TO THE TOLERANCE REQUIRED BY THE CITY OF NORFOLK AND AS SHOWN ON THESE PLANS, SPECIFICALLY: ALL STORM DRAINAGE SHALL BE INSTALLED TO WITHIN 0.10' (ONE TENTH OF A FOOT) OF THE ELEVATION SHOWN ON THE PLAN, OR AS SPECIFIED IN WRITING BY THE CITY.
3. CONTRACTOR TO BE RESPONSIBLE FOR ALL CORRECTION COSTS (I.E. PLAN, REVISION, PHYSICAL CORRECTION, REPAIRS, REPLACEMENTS, RETROFITS, ETC.) REQUIRED AS A RESULT OF INSTALLATION NOT MEETING THE REQUIREMENT TOLERANCE.
4. ALL MISS UTILITY MARKINGS IN THE RIGHT-OF-WAY ASSOCIATED WITH THE PROJECT ARE REQUIRED TO BE ERADICATED AT THE COMPLETION OF THE PROJECT IN ACCORDANCE WITH THE CITY'S ROW EXCAVATION & RESTORATION MANUAL LOCATED AT WWW.NORFOLK.GOV/PUBLICWORKS/ROW.ASP.
5. THE CONTRACTOR TO CONTACT ENVIRONMENTAL STORM WATER MANAGEMENT AT (757) 823-4000 (48 HOURS NOTICE) FOR TIE-IN INSPECTION TO ANY OF CITY OF NORFOLK STORM WATER INFRASTRUCTURE.
6. THE CONTRACTOR SHALL CONTACT THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES AT 664-4368 AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY SO THAT LAND DISTURBING PERMIT CAN BE ISSUED AND A PRECONSTRUCTION CONFERENCE CAN BE SCHEDULED.
7. CONTRACTOR IS REQUIRED TO IDENTIFY THE LAY DOWN/STORAGE AREA LOCATION AND SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN TO ENVIRONMENTAL SERVICES PRIOR TO WORK COMMENCING. CONTACT (757) 664-4363 FOR INFORMATION.
7. CONTRACTOR SHALL OBTAIN RIGHT-OF-WAY PERMIT FROM CITY PUBLIC WORKS FOR CONSTRUCTION ACCESS AND REPLACEMENT OF GRANITE CURB AT (757) 664-4695.
8. THIS SITE REQUIRES A VSPM GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS REQUIRED TO SECURE PERMIT COVERAGE FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE REQUIRED BY THE PROJECT BY SUBMITTING A COMPLETE REGISTRATION STATEMENT AND PAYING THE APPROPRIATE PERMIT FEE TO THE CITY OF NORFOLK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PERMIT COMPLIANCE DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO INSPECTIONS, SWPPP UPDATES, ETC. CONTACT NORFOLK ENVIRONMENTAL SERVICES AT (757) 664-4363 FOR FURTHER INFORMATION



VICINITY MAP

RESPONSIBLE LAND DISTURBER (RLD) DESIGNATION

THE FOLLOWING PERSON ROBERT HOPPER, III P.E.

(SIGN), IS IDENTIFIED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY. THIS PERSON MEETS THE APPLICABLE REQUIREMENTS OF VIRGINIA CODE SECTION 10.1-563 AND 10.1-566 BY VIRTUE OF THE FOLLOWING (CHECK THE CATEGORY THAT APPLIES):

- ☐ RESPONSIBLE LAND DISTURBER CERTIFICATE
- ☐ DCR CERTIFICATION FOR COMBINED ADMINISTRATOR, ADMINISTRATOR, PLAN REVIEWER, INSPECTOR, OR CONTRACTOR
- ☒ VA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, OR ARCHITECT

RLD CONTACT INFORMATION

NAME: ROBERT HOPPER, III

CERTIFICATION/REGISTRATION NUMBER: Virginia P.E. / 0402052824

COMPANY: CDM SMITH

MAILING ADDRESS: 5400 Glenwood Ave Raleigh NC, 27615

TELEPHONE: 919-325-3500 FAX: (919) 781-5730

EMAIL: hopperv@cdmsmith.com

THIS DESIGNATION MAY ONLY BE CHANGED BY A PLAN COVER SHEET REVISION THAT MUST BE SUBMITTED TO THE CITY FOR VERIFICATION AND APPROVAL.

UPON AWARD OF THE CONTRACT AND BEFORE ANY LAND DISTURBING ACTIVITY CAN BEGIN, THE CONTRACTOR SHALL EXECUTE AND SUBMIT A RESPONSIBLE LAND DISTURBER NOTIFICATION FORM TO THE DEPARTMENT OF PLANNING, ENVIRONMENTAL SERVICES, ROOM 508, CITY HALL BUILDING, 810 UNION STREET, NORFOLK, VA 23510 TEL: (757) 664-4368. AWARD OF THE CONTRACT WILL RELIEVE THE ABOVE SIGNER OF ALL RESPONSIBILITY.

SITE INFORMATION

THIS PROJECT IS DESIGNED TO RESTORE NATURAL STRUCTURE AND FUNCTION TO THE EXISTING URBAN STREAM CHANNEL AND FLOODPLAIN.

THE PROJECT SITE COVERS A CITY PARK PROPERTY AND INTERSECTS ADJACENT AREAS OF 4 PRIVATE DEVELOPED RESIDENTIAL PROPERTIES. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED FOR EACH OF THE RESIDENTIAL PROPERTIES PRIOR TO CONSTRUCTION.

PROPERTY OWNER	MULTIPLE
PROPERTY ADDRESSES:	
EAST KENMORE DRIVE	PIN 1437894636
7419 PARKDALE DRIVE	PIN 1439598020
7415 PARKDALE DRIVE	PIN 1439587897
7409 PARKDALE DRIVE	PIN 1439586891
298 SUBURBAN PKWY	PIN 1439586693
EXISTING LAND USE	RESIDENTIAL
ZONING	RESIDENTIAL
RIVER BASIN	LAFFAYETTE RIVER
FLOOD ZONE	ZONE AE - 1% ANNUAL CHANCE

THIS SITE IS LOCATED WITHIN A CITY OF NORFOLK CBPA DESIGNATED INTENSELY DEVELOPED AREA (IDA).

LAND DISTURBANCE

TOTAL SITE AREA (5 PARCELS)	2.28 ACRES
PRE-DEVELOPMENT IMPERVIOUS AREA (ACRES,%)	N/A ACRES
POST DEVELOPMENT IMPERVIOUS AREA (ACRES,%)	N/A ACRES
AREA OF DISTURBANCE	1.23 ACRES

WATER QUALITY INFORMATION

OWNERSHIP OF THE IMPROVEMENT	CITY OF NORFOLK
TYPE OF IMPROVEMENT	NATURAL CHANNEL DESIGN
PROTOCOL 1 TREATMENT CREDIT	11.6 LB/YR
PROTOCOL 3 TREATMENT CREDIT	5.5 LB/YR
TOTAL TREATMENT CREDIT	17.1 LB/YR

APPROVAL

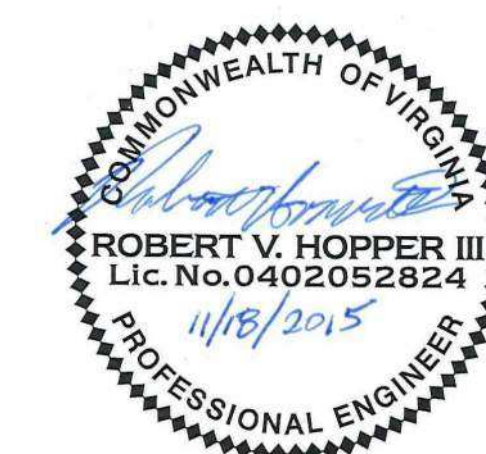
APPROVED: DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT SIGNATURE _____ DATE _____

APPROVED: ENGINEERING MANAGER SIGNATURE _____ DATE _____



OWNER CONTACT INFORMATION

CITY OF NORFOLK DEPARTMENT OF PUBLIC WORKS
2233 MCKANN AVENUE
NORFOLK, VIRGINIA 23509
(757) 823-4021



CDM Smith

CDM Smith Inc.
5700 Thurston Ave, Suite 102
Virginia Beach, VA 23455
Tel: (757) 318-9800

CDM Smith Project No. 1589-100395

XREFs: [CDWS_2436] Images: [VA PE Seal Lic No 0402-ROBHOPPER_10n]
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CITY OF NORFOLK STANDARD NOTES

- CONTRACTOR IS ENCOURAGED TO VISIT SITE PRIOR TO SUBMITTING BID.
- ELEVATIONS ARE BASED ON NAVD-88 (NORTH AMERICAN VERTICAL DATUM). BENCH MARKS ARE SHOWN ON SHEET C-1.
- FIELD ENGINEERING INFORMATION: ALL REQUESTS FOR INSPECTIONS, AND FIELD CONSTRUCTION INFORMATION SHOULD BE DIRECTED TO: CITY OF NORFOLK CHIEF OF CONSTRUCTION AT (757) 823-1013
- PRIOR TO THE SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PRELIMINARY DETAILED TRAFFIC CONTROL PLAN FOR REVIEW BY THE DIVISION OF TRAFFIC ENGINEERING, DEPARTMENT OF PUBLIC WORKS. THE TRAFFIC CONTROL PLAN AS WELL AS ALL TRAFFIC CONTROL DEVICES UTILIZED ON THE PROJECT MUST COMPLY WITH THE "FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR STREETS AND HIGHWAYS, FOLLOWING APPROVAL OF THE PLAN, A REPRODUCIBLE DRAWING SHALL BE SUBMITTED TO THE FIELD ENGINEERING OFFICE FOR USE AND DISTRIBUTION.
- SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE APPROVED BY THE FIELD ENGINEERING OFFICE PRIOR TO BEGINNING CONSTRUCTION.
- A CONSTRUCTION SCHEDULE SHALL BE SUBMITTED TO THE FIELD ENGINEERING OFFICE, AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE.
- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH THE CITY OF NORFOLK **RIGHT-OF-WAY EXCAVATION & RESTORATION MANUAL**, (ORDINANCE NO. 40,778), DEPT. OF PUBLIC WORKS, DIVISION OF TRANSPORTATION. THE DOCUMENT MAY BE DOWNLOADED AT <http://www.norfolk.gov/PublicWorks/>
- THERE MAY BE A C.B.D. TRAFFIC CONTROL SYSTEM IN THIS AREA. FOR PROTECTION OF THIS SYSTEM, PHONE THE PUBLIC WORKS DEPARTMENT BEFORE STARTING WORK: 664-7300
- CONTRACTOR SHALL CONFORM TO THE "OVERHEAD HIGH VOLTAGE ACT" (EFFECTIVE JULY 1, 1989) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.
- THE DEPARTMENT OF PUBLIC WORKS WILL OBTAIN ALL NECESSARY TREE PERMITS. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF THE "CITY OF NORFOLK TREE ORDINANCE" (EFFECTIVE FEBRUARY 15, 2005). CONTACT CITY FORESTER, RICHARD WERNICKE (757) 823-4024, TO ACQUIRE PERMIT FOR REMOVAL OF TREES. CONTRACTOR SHALL MAINTAIN TREE PERMIT ON-SITE AND CONDUCT AN ON-SITE MEETING WITH CITY FORESTER PRIOR TO TREE DEMOLITION.
- STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION. FOR LOCATION OF UTILITIES, CALL MISS UTILITY AT 1-800-552-7001 FOR: WATER & SEWER, H.R.S.D., VERIZON TELEPHONE, DOMINION VA. POWER, VIRGINIA NATURAL GAS, TRAFFIC CONTROLS, STORM DRAIN, COX CABLE T.V. ALL MISS UTILITY MARKINGS IN THE RIGHT-OF-WAY SHALL BE ERADICATED AT THE COMPLETION OF THE PROJECT IN ACCORDANCE WITH THE CITY'S ROW EXCAVATION AND RESTORATION MANUAL.
- THE CONTRACTOR SHALL BE REQUIRED AND AGREES TO COMPLY WITH ALL THE PROVISIONS OF THE "VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT" (SECTION 56-265.14 et seq., CODE OF VIRGINIA, 1950, AS AMENDED) AND HEREBY AGREES TO HOLD THE CITY OF NORFOLK HARMLESS AGAINST ANY LOSS, DAMAGES, OR CLAIMS OF ANY NATURE WHATSOEVER ARISING OUT OF THE CONTRACTOR'S FAILURE TO SO COMPLY WITH THE REQUIREMENTS OF SAID ACT.
- CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE, ANY DAMAGE DONE TO THE UTILITIES SHALL BE IMMEDIATELY REPAIRED AT CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS AND FIELD SURVEYS, AND IS NOT GUARANTEED TO BE EXACT OR COMPLETE. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION.
- CONTRACTOR SHALL HAVE A SET OF PROJECT PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES. IN ADDITION THE CONTRACTOR SHALL HAVE IN HIS POSSESSION THE CURRENT EDITION OF THE HRPDC SPECIFICATIONS.
- FOR WORK IN THE CITY OF NORFOLK RIGHT-OF-WAY, CONTACT 48 HOURS IN ADVANCE.

RIGHT-OF-WAY DIVISION (PERMITS)	(757) 664-7306
DIVISION OF TRANSPORTATION	(757) 664-7300
DIVISION OF ENVIRONMENTAL STORM WATER	(757) 823-4000
DEPARTMENT OF PARKS AND URBAN FORESTRY	(757) 823-4023
CONSTRUCTION PERMITS	(757) 664-6565

- THE CONTRACTOR SHALL REPLACE ALL DAMAGED OR REMOVED SIDEWALKS DAILY. THE TEMPORARY SIDEWALK SHALL BE A MINIMUM OF 1" COLD MIX OVER COMPACTED SUBGRADE AND SLOPED TO PROVIDE POSITIVE DRAINAGE. THE PERMANENT SIDEWALK REPLACEMENT SHALL BE IN ACCORDANCE WITH CURRENT CITY STANDARDS AND SHALL BE REPLACED TO THE NEAREST JOINT.
- THE CONTRACTOR SHALL NOTE THAT THERE MAY BE OTHER CONSTRUCTION IN THIS AREA. THE CONTRACTOR SHALL COOPERATE WITH THE CITY AND ANY OTHER CONTRACTOR OR UTILITY OWNER TO PREVENT DELAYS TO EITHER PROJECT.

CITY OF NORFOLK STANDARD EROSION AND SEDIMENT CONTROL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (3RD EDITION 1992) AND THE CITY OF NORFOLK EROSION AND SEDIMENT CONTROL ORDINANCE.
- THE CONTRACTOR SHALL CONTACT THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES AT (757) 664-4368 AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITIES INCLUDING DEMOLITION, SO THAT A PRE-CONSTRUCTION CONFERENCE CAN BE HELD.
- THE CONTRACTOR SHALL APPLY PERMANENT OR TEMPORARY SOIL STABILIZATIONS TO ALL DENUDED OR DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. SOIL STABILIZATION MUST ALSO BE APPLIED TO ANY DENUDED OR DISTURBED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS. SOIL STABILIZATION MEASURES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING AND THE EARLY APPLICATION OF GRAVEL BASE MATERIAL ON AREAS TO BE PAVED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND CLEANUP OF SEDIMENTATION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE IMMEDIATELY.
- THE CONTRACTOR SHALL LIMIT SITE ACCESS BY CONSTRUCTION VEHICLES TO ENTRANCES PROTECTED BY A STONE CONSTRUCTION ENTRANCE (VESCH STANDARD & SPEC 3.02) OR AN APPROVED COMPARABLE CONTROL MEASURE. SEDIMENT SHALL BE REMOVED FROM PAVED AREAS ON A DAILY BASIS.
- STOCKPILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIAL TRANSPORTED FROM THE PROJECT SITE.
- THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST INCLUDING (BUT NOT LIMITED TO) THE USE OF WATER, MULCH, OR CHEMICAL DUST ADHESIVES AND CONTROL OF CONSTRUCTION SITE TRAFFIC.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT ADJACENT PROPERTIES, WETLANDS, WATERWAYS OR THE STORM DRAINAGE SYSTEM.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED NECESSARY BY THE PLAN APPROVING AUTHORITY.
- THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED.

EROSION AND SEDIMENTATION CONTROL NARRATIVE

PROJECT DESCRIPTION

THE CONTRACT PLANS PROVIDE FOR CONSTRUCTION OF NEW OPEN WATER CHANNEL. THE PROJECT SITE IS A DRAINAGE CORRIDOR PARTIALLY ON CITY OWNED PROPERTY AND PARTIALLY ON MULTIPLE RESIDENTIAL PROPERTIES BETWEEN EAST KENMORE DRIVE AND PARKDALE DRIVE. THE EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDE PUMP AROUND OF CLEAR WATER, PREVENTION OF SEDIMENT LADEN WATERS FROM DISCHARGING THROUGH THE DOWNSTREAM CULVERTS WITH ROCK INLET PROTECTION, AND ADDITION OF SILT FENCE AROUND THE PERIMETER OF STAGING AREAS. ALL WORK PERFORMED SHALL CONFORM TO THE LATEST VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH, 3RD EDITION 1992) PROVIDED STANDARDS, CRITERIA AND GUIDELINES.

LAYDOWN AREAS - THE CONTRACTOR SHALL DETERMINE THE SUFFICIENCY OF THE AVAILABLE STAGING AND STOCKPILE AREA. SHOULD THE LAYDOWN AREA PROVE INSUFFICIENT FOR THE CONTRACTOR'S NEEDS, ADDITIONAL SPACE SHALL BE LOCATED, COORDINATED, AND PAID FOR AT THE CONTRACTOR'S EXPENSE WITH NO ADDITIONAL EXPENSE TO THE CITY.

CONTRACTOR SHALL PREPARE AND SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO CITY OF NORFOLK ENVIRONMENTAL SERVICES THAT IS PREPARED IN ACCORDANCE WITH NPDES REGULATIONS. THE SWPPP SHALL BE MAINTAINED AT THE CONSTRUCTION SITE.

PROJECT SOIL TYPE AND WATER TABLE

SOIL TYPE: BOHICKET MUCK MAPPING UNIT
WATER TABLE: APPROXIMATE ELEVATION 0-2 FT NAVD88.

CRITICAL EROSION AREAS

THE WORK WILL BE CONDUCTED IN THE CHANNEL AND FLOODPLAIN WHEN DRAINED. IN THE EVENT THAT STORMWATER INFLOWS EXCEED THE CAPACITY OF THE PUMP AROUND DEWATERING PUMPS, EQUIPMENT WILL BE REMOVED FROM THE CHANNEL AND FLOWS WILL BE ALLOWED TO PASS. THE DOWNSTREAM TRIBUTARY TO WAYNE CREEK COULD EXPERIENCE SIGNIFICANT DEGRADATION IN THE EVENT SEDIMENT IS TRANSFERRED OFFSITE.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE NOTED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

STRUCTURAL PRACTICES

UNLESS OTHERWISE NOTED, SEE PLAN SHEET C-1 FOR LOCATIONS OF STRUCTURAL AND C-4 FOR VEGETATIVE EROSION AND SEDIMENT CONTROL PRACTICES PROPOSED FOR THIS PROJECT.

- TEMPORARY CONSTRUCTION ENTRANCE - 3.02 A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE CONTRACTOR LAYDOWN AREA INTERSECTS IS SHOWN IN A MINIMALLY USED PARKING LOT. DURING MUDDY CONDITIONS DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE STREET.
- ROCK INLET PROTECTION - A RIPRAP AND STONE SEDIMENT BARRIER IN THE FORM OF A CHECK DAM IS TO BE INSTALLED NEAR THE INLET OF EXISTING DISCHARGE CULVERT WITH AN EXCAVATED VOLUME OF 240 CUBIC YARDS TO TRAP SEDIMENT FROM THE DISTURBANCE AREA AS SHOWN ON THE CONTRACT DRAWINGS.
- DEWATERING BAG - 3.26 A FILTER BAG IS TO BE PLACED WHEREVER SEDIMENT-LADEN WATER MUST BE REMOVED FROM THE SITE BY PUMPING.
- TREE PROTECTION - 3.38 A FENCE BARRIER IS TO BE PLACED AROUND TREES AND VEGETATED AREAS WHICH WILL NOT BE DISTURBED TO PROTECT THE TREES AND OTHER VEGETATION FROM CONSTRUCTION EQUIPMENT AND SOIL COMPACTION.

VEGETATIVE PRACTICE

- TEMPORARY SEEDING - 3.32 ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR 14 DAYS OR LONGER SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING COMPLETION OF GRADING.
- EROSION CONTROL BLANKETS - 3.36 OR MULCH 3.35 EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON MAINTAINED TURF AREAS AND FLAT AREAS GREATER THAN 20 FT FROM THE CONSTRUCTED CHANNEL AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.

MANAGEMENT STRATEGIES

- CONSTRUCTION SHALL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
- TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

- INSTALL CONSTRUCTION FENCE AROUND LIMITS OF CONSTRUCTION AS SHOWN ON EXISTING SITE AND DEMOLITION PLAN C-1 AND DETAILS ON C-6.
- INSTALL CONSTRUCTION ENTRANCE FROM PUBLIC RIGHT OF WAY AS SHOWN ON C-1.
- DELINEATE STAGING AREA AND SURROUND WITH SEDIMENT FENCE.
- INSTALL TEMPORARY CHECK DAM IN FRONT OF EXISTING DOWNSTREAM CULVERTS AT SUBURBAN PARKWAY WITH 3 FT EXCAVATED DEPRESSION 3 FT DEEP IN EXISTING CHANNEL TO CAPTURE SEDIMENT UPSTREAM OF CHECK DAM.
- INSTALL PUMP AROUND FROM UPSTREAM OF WORK AREA TO DOWNSTREAM OF WORK AREA TO BYPASS CLEAN WATER AND ALLOW WORK IN THE DRY AS SHOWN ON C-1.
- INSTALL TEMPORARY STREAM CROSSING, SEDIMENT FENCE, AND BLOCK FLOW TO DEMOLITION AREA AS SHOWN ON C-1.
- DEMOLISH RETAINING WALLS AND FENCE AS SHOWN ON C-1.
- REMOVE TREES AND CLEAR AND GRUB AS SHOWN ON C-1 ONLY AS NECESSARY TO GRADE CHANNEL AND FLOODPLAIN.
- EXCAVATE AND GRADE CHANNEL AND FLOODPLAIN AS SHOWN ON PROPOSED GRADING PLAN C-2 AND SECTIONS ON C-3. PROPERLY DISPOSE OF EXCESS SOILS OFFSITE. INSTALL PERMANENT NATURAL FIBER MATTING ON STREAM BANKS.
- REPLACE FENCES ALONG RESIDENTIAL BACKYARDS AS SHOWN ON C-2.
- DISTURB ONLY 100 FT OF CHANNEL PER DAY BEGINNING AT UPSTREAM END AND STABILIZING WITH COIR FIBER MATTING AND SEEDED AT END OF WORK DAY.
- PROVIDE PERMANENT SEEDING WITH NATIVE VEGETATION AND TURF GRASS ACCORDING TO PLANTING PLAN ON C-4 AND DETAILS ON C-5 AND C-6. MULCH AND STABILIZE THE SITE AS AREAS COMPLETED.
- ONCE SITE STABILIZED, REMOVE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES COMPLETELY.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE IN ACCORDANCE WITH VESCH SPEC 3.32, PERMANENT SEEDING AND VIRGINIA EROSION AND SEDIMENT CONTROL TECHNICAL BULLETIN NO. 4 NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER ALL NEW CHANNEL BANKS.

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- THE SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER.
- SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE RE-SEEDED AS NEEDED.
- THE SEDIMENT FILTER BAG WILL BE CHECKED REGULARLY TO ENSURE FUNCTIONALITY AND WILL BE CLEANED OUT/REPLACED IF ANY CLOGGING IS OCCURRING.
- ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED.

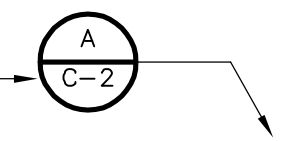
EXISTING CONDITIONS LEGEND

17.9	SPOT ELEVATION
SMH	SANITARY MANHOLE
DI	DRAINAGE INLET
==	STORM PIPES
▲	TRAVERSE POINT
TBM	TEMPORARY BENCH MARK
○	TREE
○	SAPLING
⋈	WATER VALVE
▲	W1-1
W	WETLAND FLAGS
W	UNDERGROUND WATER
///	ASPHALT SURFACE
x-x	CHAINLINK FENCE
TOB	TOP OF BANK
TOS	TOE OF SLOPE
BOS	BOTTOM OF STRUCTURE
RCP	REINFORCED CONCRETE PIPE
---	APPROXIMATE REGULATORY FLOODPLAIN BOUNDARY
---S---	1 FOOT INDEX CONTOUR SURVEYED
---	1 FOOT INTERMEDIATE CONTOUR SURVEYED
- · - · - · -	WETLAND BOUNDARY

PROPOSED CONDITIONS LEGEND

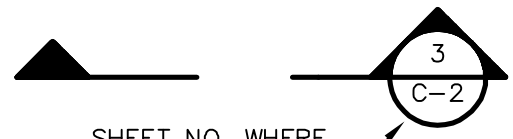
---	LIMITS OF CONSTRUCTION
---	CHANNEL CENTERLINE
---	CROSS SECTION
⊗	TREE REMOVAL
⊗	DEMOLITION
⊗	TREE PROTECTION FENCE
---	TREE ROOT PRUNING
⌢	LOG VANE
---	PROPOSED MINOR CONTOUR LINE AND ELEVATION DESIGNATION
---	PROPOSED MAJOR CONTOUR LINE AND ELEVATION DESIGNATION

SHEET NO. WHERE
DETAIL IS DRAWN



SYMBOL WHERE THERE IS A DETAIL

SHEET NO. WHERE
SECTION IS DRAWN



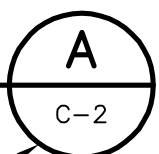
SYMBOL WHERE THERE IS A SECTION

SUBTITLE

DETAIL

1" = 1"

SHEET NO. WHERE
DETAIL IS TAKEN



SYMBOL WHERE DETAIL IS DRAWN

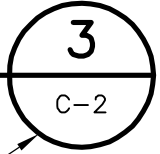
DETAIL SYMBOL

SUBTITLE

SECTION

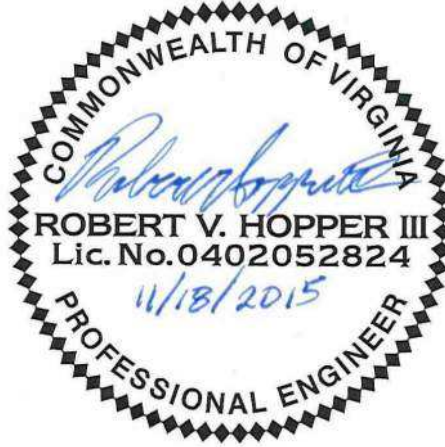
1" = 1"

SHEET NO. WHERE
SECTION IS TAKEN



SYMBOL WHERE SECTION IS DRAWN

SECTION SYMBOL



PROJECT NO. 1589-100395
FILE NAME: G001GNLG.DWG

SHEET NO.

G-1

DESIGNED BY:	R. HOPPER
DRAWN BY:	M. KOSKI
SHEET CHK'D BY:	M. BROKAW
CROSS CHK'D BY:	
APPROVED BY:	R. HOPPER
DATE:	JUNE 2015



CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

GENERAL NOTES AND LEGEND

XREFs: [CDMS_2436] Images: [VA PE Seal Lic No 0402_R0BHOPPER_1on]
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CITY OF NORFOLK RIGHT-OF-WAY DIVISION STANDARD SITE PLAN NOTES

EXCAVATION AND RESTORATION IN THE RIGHT OF WAY:

- ALL WORK WITHIN THE RIGHT OF WAY SHALL COMPLY WITH THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL, (ORDINANCE NO. 40,778), DEPARTMENT OF PUBLIC WORKS RIGHT-OF-WAY DIVISION. DOWNLOAD AT [HTTP://WWW.NORFOLK.GOV/DOCUMENTCENTER/VIEW/779](http://www.norfolk.gov/documentcenter/view/779). IT IS IMPORTANT THAT CONTRACTORS FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OUTLINED IN THE MANUAL. FAILURE TO DO SO MAY IMPACT PROJECT COSTS. ALSO SEE "OTHER" IN THIS SECTION. EXCEPTIONS MAY BE PERMITTED. A REVIEW MEETING WITH RIGHT OF WAY IS REQUIRED. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV TO SCHEDULE.
 - ALL WORK WITHIN THE RIGHT OF WAY SHALL COMPLY WITH THE CITY OF NORFOLK DESIGN STANDARDS. DOWNLOAD AT [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=819](http://www.norfolk.gov/index.aspx?nid=819). EXCEPTIONS MAY BE PERMITTED. A REVIEW MEETING WITH RIGHT OF WAY IS REQUIRED. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV TO SCHEDULE.
 - FLOWABLE FILL IS NOT AN APPROVED MATERIAL FOR USE IN THE CITY OF NORFOLK FOR BACKFILL WITHOUT PRIOR APPROVAL. THE SELECT MATERIAL AND 21A STONE WILL BE IN ACCORDANCE WITH THE 2002 VDOT ROAD AND BRID GE SPECIFICATIONS. FOR BACKFILL AROUND THE PIPE USE SELECT MATERIAL (SECTION 207) - TYPE 1 AND 20 CBR COMPACTION. FOR THE SUB BASE MATERIAL USE 6" MIN. VDOT 21A STONE IN ACCORDANCE TO SECTION 208.
 - NEW DEVELOPMENTS, CONSTRUCTION, AND ADDITIONS REQUIRE NEW SIDEWALK, CURB, GUTTER, AND DRIVEWAYS. EXCEPTIONS MAY BE PERMITTED. A REVIEW MEETING WITH RIGHT OF WAY IS REQUIRED. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV TO SCHEDULE.
 - IF APPROVED BY RIGHT-OF-WAY, WHEN THE CONTRACTORS WORK REQUIRES THE SAWCUTTING AND/OR PARTIAL DEMOLITION AND/OR REMOVAL OF ANY SECTION OF AN EXISTING APRON OR SIDEWALK. THE CONTRACTOR WILL BE REQUIRED TO REMOVE SAID EXISTING APRON OR SIDEWALK AND REPLACE IT WITH A NEW MONOLITHIC APRON OR SIDEWALK. SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. ALL CONCRETE IS TO BE SAW CUT. NO PATCHING WILL BE ALLOWED. COMMERCIAL APRONS SHALL BE REPLACED WITH AN APPROVED COMMERCIAL APRON. RESIDENTIAL APRONS SHALL BE REPLACED WITH AN APPROVED RESIDENTIAL APRON (HS-207). SIDEWALKS SHALL BE REPLACED WITH AN APPROVED SIDEWALK DETAIL. CONTACT THE DIVISION OF RIGHT-OF-WAY FOR APPROVAL AT PWROW@NORFOLK.GOV (ORDINANCE NO: 40,778)
 - UTILITY POLES MUST BE RELOCATED AT YOUR PROJECT'S COST. A COPY OF THE WORK ORDER FOR POLE RELOCATIONS MUST ACCOMPANY RIGHT-OF-WAY PERMITS.
- PERMITS:
- A PERMIT AND INSPECTION IS REQUIRED TO PERFORM EXCAVATION AND INSTALLATION WORK OF ANY KIND IN THE RIGHT-OF-WAY. APPLICATIONS: [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT AND INSPECTION IS REQUIRED TO SLOW, CLOSE, REDIRECT, DETOUR, OR ALTER VEHICULAR AND PEDESTRIAN TRAFFIC FOR ANY DURATION. APPLICATIONS: [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT AND INSPECTION IS REQUIRED FOR LANE OR SIDEWALK CLOSURES FOR WORK WASHING, GRADING, OR INSTALLING ANY ITEM ABOVE OR UNDERGROUND. APPLICATIONS: [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT AND INSPECTION IS REQUIRED TO PLACE ANY OBJECT IN THE CITY RIGHT-OF-WAY. APPLICATIONS: [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT IS REQUIRED TO HAUL OVERSIZED, OVERWEIGHT, OR OVER HEIGHT LOADS. APPLICATIONS: [HTTP://WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT AND INSPECTION ARE REQUIRED WHEN A NEW APRON AND/OR SIDEWALK IS INSTALLED, ALL NEW OR EXISTING UTILITY STRUCTURES SHALL BE INSTALLED AND/OR RELOCATED OUTSIDE THE AREA OF THE NEW APRON AND/OR SIDEWALK. APPLICATION: [WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - A PERMIT AND INSPECTION IS REQUIRED FOR TEMPORARY BULK WASTE CONTAINERS PLACED IN THE RIGHT OF WAY. IF THE CONTAINER IS PLACED ON PRIVATE PROPERTY A PERMIT FROM THE HEALTH DEPARTMENT IS REQUIRED.

FEES:

- CURRENT RIGHT OF WAY PERMIT FEES: [HTTP://WWW.NORFOLK.GOV/DOCUMENTCENTER/VIEW/789](http://www.norfolk.gov/documentcenter/view/789)
- EXEMPTION: CONTRACTORS PERFORMING WORK UNDER CONTRACT WITH THE CITY OF NORFOLK ARE EXEMPT FROM PERMIT FEES THROUGH JULY 1, 2014. EFFECTIVE JULY 1, 2014, CONTRACTORS PERFORMING WORK UNDER CONTRACT WITH THE CITY OF NORFOLK MUST PAY STREET, LANE, AND SIDEWALK CLOSURE FEES.
- EXEMPTION: CONTRACTORS PERFORMING WORK UNDER CONTRACT WITH VDOT ARE EXEMPT FROM ALL PERMIT FEES.

TRAFFIC CONTROL:

- ALL TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)", THE "VIRGINIA WORK AREA PROTECTION MANUAL" AND THE "CITY OF NORFOLK RIGHT OF WAY EXCAVATION AND RESTORATION MANUAL WHETHER IN EFFECT OR NOT AT THE TIME OF BID. ADDITIONAL CHARGES APPLY IF OFF-DUTY OFFICERS ARE REQUIRED. A LIST OF PERMIT FEES IS LOCATED AT [WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
- FOR CONSTRUCTION IN OR ADJACENT TO ANY ARTERIAL AND/OR COLLECTOR STREETS REQUIRING TEMPORARY LANE OR STREET CLOSURE, THE CONTRACTOR MUST SCHEDULE A MEETING WITH THE CITY'S TRAFFIC MITIGATION TEAM. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV TO SCHEDULE.

- THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED TRAFFIC CONTROL PLAN (MOT) WITH THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY AT LEAST 14 DAYS IN ADVANCE OF THE START DATE. THE MOT SHALL BE A DRAWING OR AERIAL PHOTO WITH SITE SPECIFIC DETAILS. THESE SHALL INCLUDE BUT ARE NOT LIMITED TO: TRAFFIC SIGNS, DIRECTIONAL SIGNS, DESTINATION SIGNAGE, CHANNELIZING DEVICES, WATER-FILLED BARRIERS, PORTABLE MESSAGE BOARDS WITH MESSAGES TO BE DISPLAYED AND TIMES AND DURATIONS OF DISPLAYED MESSAGES. ADDITIONALLY THE MOT SHALL DISPLAY THE EXACT LOCATION OF ALL SIGNS AND/OR DEVICES INCLUDING SPACING FOR EACH SIGN AND/OR DEVICE, SPACING BEING APPROPRIATE FOR THE WORK ZONE LOCATION AND POSTED SPEED LIMITS. ALL MAINTENANCE OF TRAFFIC (MOT) PLANS SHALL CONFORM TO THE CURRENT ISSUE OF "THE VIRGINIA WORK AREA PROTECTION MANUAL" COPIES OR REPRODUCTIONS OF STANDARD VWAPM TTC PLANS MAY NOT BE SUFFICIENT. CONTRACTORS SHOULD CONSIDER THESE ITEMS WHEN BIDDING FOR CONSTRUCTION AS IT MAY AFFECT COSTS.
- NORFOLK POLICE REQUIRES OFF-DUTY OFFICERS FOR TRAFFIC CONTROL IN ANY SIGNALIZED INTERSECTION AND AS REQUIRED BY PERMIT. OFF-DUTY OFFICERS ARE INDEPENDENT CONTRACTORS. THE COST FOR OFF-DUTY OFFICERS IS A CONTRACTOR/OWNER RESPONSIBILITY.

BONDS:

- THE CONTRACTOR, OWNER, OR DEVELOPER WILL BE REQUIRED TO POST A CASH, CHECK, OR SURETY BOND OR LETTER OF CREDIT TO EXCAVATE IN THE RIGHT OF WAY. DOWNLOAD THE FORM: [HTTP://WWW.NORFOLK.GOV/DOCUMENTCENTER/VIEW/1406](http://www.norfolk.gov/documentcenter/view/1406)
- BOND AMOUNT MUST INCLUDE 100% TOTAL COST OF ROW INSTALLATION INCLUDING STREETLIGHTS, WATER, SEWER, STORM, BMPs, ROADWAY, SIDEWALK, CURB, GUTTER. AN ADDITIONAL AMOUNT MAY BE SET AT THE DISCRETION OF THE DIRECTOR OF PUBLIC WORKS AND/OR ROW MANAGER.
- BOND WILL BE REDUCED DOWN TO 10% FROM THE DATE OF FINAL INSPECTION FOR A 2 YEAR WARRANTY TERM. A SEPARATE WARRANTY BOND IS ACCEPTABLE IN LIEU OF A BOND REDUCTION. A LETTER REQUESTING RELEASE OR REDUCTION MUST BE SENT TO THE RIGHT OF WAY PERMITS OFFICE VIA E-MAIL AT PWROW@NORFOLK.GOV

NOTES TO CITY A/E DESIGNERS AND CONTRACTORS:

- ALL CITY PROJECTS CANNOT BE BID UNTIL UTILITIES ARE RELOCATED OR ARRANGEMENTS HAVE BEEN COORDINATED BY THE CITY'S PROJECT MANAGER, A/E, AND RIGHT OF WAY DIVISION. PLEASE PROVIDE A LIST AND DRAWINGS OF ALL UTILITIES NEEDING RELOCATION TO RIGHT-OF-WAY DIVISION AT OR BEFORE 30% SUBMITTAL.
 - PROJECT DESIGNERS MUST INCLUDE A DETAILED TRAFFIC CONTROL PLAN FOR UTILITY WORK WITHIN THE RIGHT-OF-WAY IN THE PLANS. FOR CONSTRUCTION IN OR ADJACENT TO ANY ARTERIAL AND/OR COLLECTOR STREETS AS DEFINED IN THE VIRGINIA WORK AREA PROTECTION MANUAL REQUIRING TEMPORARY LANE OR STREET CLOSURE, THE CONTRACTOR MUST SCHEDULE A MEETING WITH THE CITY'S TRAFFIC MITIGATION TEAM. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV TO SCHEDULE.
- OTHER:
- DETAILED STAMPED DRAWINGS FOR SHORING AND SCAFFOLDING WILL BE REQUIRED AS PART OF THE RIGHT-OF-WAY PERMIT PROCESS.
 - ANY EXCAVATION IN THE ROADWAY MUST BE PATCHED WITH ASPHALT. STONE IS NOT ACCEPTABLE.
 - FULL CURB TO CURB RESURFACING WILL BE REQUIRED IF ROADWAY PORTION IS CUT WITHIN THE FIRST 5 YEARS AFTER RESURFACING. AN ADMINISTRATIVE FEE OF \$500 WILL BE ASSESSED IN ACCORDANCE WITH CITY CODE.
 - AS PART OF THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT OF WAY, THE CONTRACTOR MUST SUBMIT A MAP IDENTIFYING THE PROJECTS STORAGE AND LAY DOWN AREA. THE CITY DOES NOT ALLOW STORAGE, STAGING OR LAY DOWN AREAS WITHIN THE RIGHT OF WAY. CONTRACTORS ARE ENCOURAGED TO MAKE ARRANGEMENTS TO STORE MATERIALS AND LAY DOWN ON PRIVATE PROPERTY OR THEY MUST BE STORED WITHIN CONSTRUCTION SITE.
 - ALL MISS UTILITY MARKINGS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE ERADICATED AT THE COMPLETION OF THE PROJECT IN ACCORDANCE WITH THE CITY'S ROW EXCAVATION & RESTORATION MANUAL LOCATED AT [WWW.NORFOLK.GOV/INDEX.ASPX?NID=362](http://www.norfolk.gov/index.aspx?nid=362)
 - DESIGNERS ARE RESPONSIBLE TO CHECK IN-FIELD GRADES AND TO CONSULT WITH THE PROPER CITY OF NORFOLK STAFF IF THERE ARE QUESTIONS OR CONCERNS. DESIGNERS MUST SUBMIT A NOTICE VIA EMAIL TO THE RIGHT-OF-WAY DIVISION AT PWROW@NORFOLK.GOV VERIFYING THAT GRADES HAVE BEEN CHECKED AND ARE CORRECT.
 - A CONSTRUCTION FENCE MAY BE REQUIRED FOR YOUR SITE. IN DOWNTOWN, CONCRETE BARRIERS AND WOOD PANELS ARE REQUIRED IN MOST CASES. IN SOME CASES, CHAIN LINK FENCE IS ACCEPTABLE. A REVIEW BY RIGHT OF WAY IS REQUIRED TO DETERMINE THE TYPE OF FENCE. PLEASE CONTACT PUBLIC WORKS AT PWROW@NORFOLK.GOV

NOTIFICATIONS:

- NOTIFICATION MUST BE APPROACHED FROM 3 LEVELS OR TIERS FOCUSING ON THOSE AFFECTED BY THE CONSTRUCTION. CONTRACTORS AND/OR PROJECT SPONSOR WILL BE REQUIRED TO NOTIFY RESIDENTS AND BUSINESSES IN THE IMMEDIATE AREA THAT WILL BE AFFECTED BY THE CONSTRUCTION. DOOR HANGERS MUST BE PLACED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AND MUST INCLUDE A 24 HOUR CONTACT PHONE NUMBER FOR EMERGENCIES. UPDATES MUST BE PROVIDED TO RESIDENTS AND BUSINESSES ON A BI-WEEKLY OR MONTHLY BASIS DEPENDING ON THE FOLLOWING:
 - IMMEDIATE IMPACT - BUSINESS OR RESIDENTS WITHIN THE CONSTRUCTION ZONE WHO WILL BE AFFECTED BY ACCESS RESTRICTIONS, NOISE, DIRT AND DUST, USE OF PROPERTY DIRECTLY ADJACENT TO THEM, ETC.
 - AREA IMPACT - THOSE WHO TRAVEL THROUGH OR WILL BE DETOURED AROUND LOCAL OR COLLECTOR STREETS, AFFECTED BY CONSTRUCTION INCLUDING CIVIC LEAGUES, BUSINESS ASSOCIATIONS AND PROPERTY OWNERS.
 - CITYWIDE IMPACT - THOSE WHO ARE AFFECTED BY VEHICULAR OR PEDESTRIAN ACCESS ON ARTERIAL STREETS OR IN BUSINESS OR OTHER PUBLIC ACTIVITY AREAS (SCHOOLS, UNIVERSITIES, GOVERNMENT FACILITIES, ETC.)

REV. NO.	DATE	DRWN	CHKD	REMARKS	

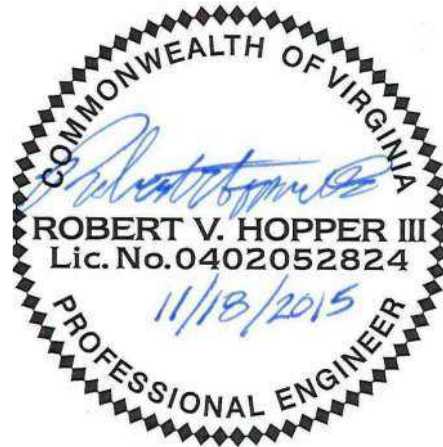
DESIGNED BY:	R. HOPPER
DRAWN BY:	M. KOSKI
SHEET CHK'D BY:	M. BROKAW
CROSS CHK'D BY:	
APPROVED BY:	R. HOPPER
DATE:	AUGUST 2015

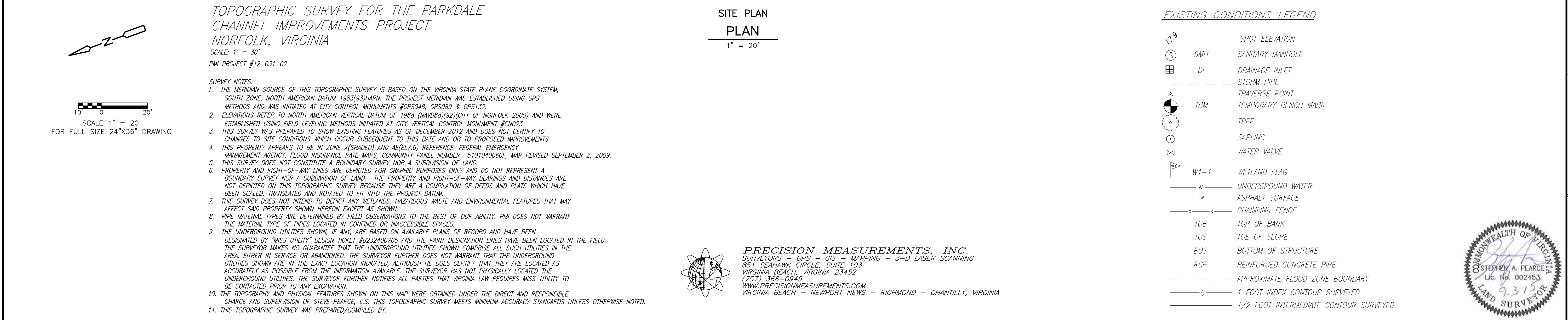


CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

GENERAL NOTES AND LEGEND

PROJECT NO.	1589-100395
FILE NAME:	G002GNLG.DWG
SHEET NO.	G-2

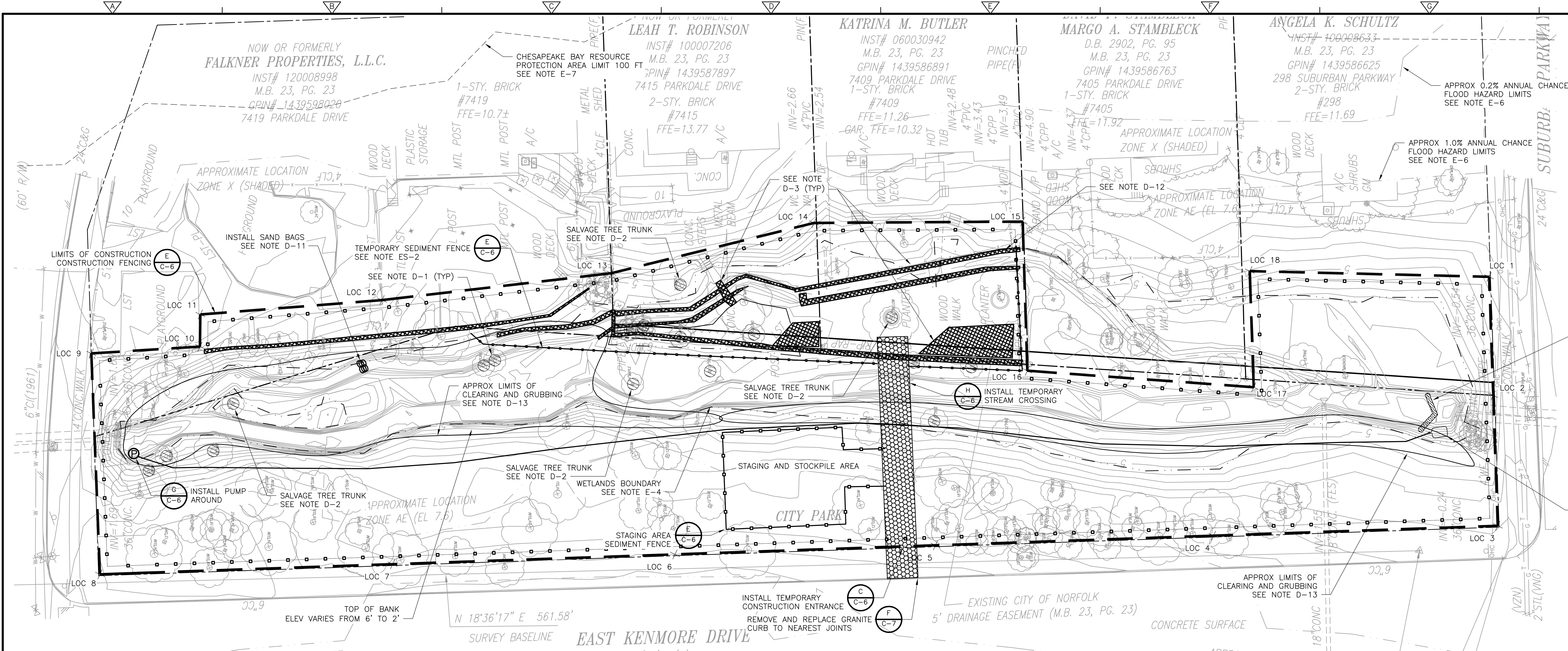


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SCALE 1" = 20'
FOR FULL SIZE 24"x36" DRAWING

INSTALL TEMPORARY
ROCK CHECK DAM
WITH SEDIMENT TRAP VOLUME

DISCHARGE
PUMP AROUND
TO DEWATERING BAG

EXISTING CONDITIONS NOTES:

- E-1. SURVEY PREPARED BY PRECISION MEASUREMENTS, INC. 813 DILIGENCE DRIVE, SUITE 121-B, NEWPORT NEWS, VA 23606. TEL: (757) 595-7570. THE MERIDIAN SOURCE OF THIS TOPOGRAPHIC SURVEY IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983 (1993). THE PROJECT MERIDIAN WAS ESTABLISHED USING GPS. ELEVATIONS REFER TO NAVD88 (92) AND WERE ESTABLISHED USING DIFFERENTIAL LEVELING METHODS INITIATED AT CITY OF NORFOLK CONTROL MONUMENT J2.
- E-2. LOCATIONS OF UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES.
- E-3. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EXISTING TRASH OR DEBRIS FROM THE SITE AND PROPER DISPOSAL IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
- E-4. 404 JURISDICTIONAL WETLANDS ARE PRESENT ON THIS SITE WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN. THE RIPARIAN WETLANDS GENERALLY CORRESPOND WITH THE CORRIDOR OF THE STREAM CHANNEL. TWO UPLAND AREAS WITHIN THE WETLAND AREAS ARE SHOWN.
- E-5. SITE ACCESS SHALL BE GAINED AS NEEDED FROM THE PUBLIC RIGHT OF WAY AND THE CONTRACTOR IS RESPONSIBLE FOR FULL RESTORATION OF EXISTING CONDITIONS.
- E-6. MUCH OF THE CONSTRUCTION SITE IS WITHIN THE 1.0% ANNUAL CHANCE FLOOD HAZARD ZONE AS SHOWN ON FIRM 5101040060F PANEL 60/185 DATED SEPTEMBER 2, 2009.
- E-7. THE ENTIRE SITE IS WITHIN THE CHESAPEAKE BAY RESOURCE PROTECTION AREA DESIGNATED AS AN INTENSELY DEVELOPED AREA.

DEMOLITION AND SITE PREPARATION NOTES:

- D-1. VEGETATION REMOVAL REQUIRES PERMIT FROM CITY ENVIRONMENTAL SERVICES (757) 664-4751. TREES SHOWN SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ROOT SYSTEM. ALL OTHER TREES SHALL BE PROTECTED UNLESS APPROVED BY THE OWNER. ROOT PRUNING BY A VIRGINIA CERTIFIED ARBORIST IS REQUIRED PRIOR TO GRADING TO PROTECT REMAINING TREES. A TREE PERMIT SHALL BE ACQUIRED FROM THE CITY OF NORFOLK URBAN FORESTER PRIOR TO TREE REMOVAL AND PRUNING.
- D-2. SALVAGE AND STOCKPILE SELECT TREE TRUNKS IN 15 FT LENGTHS FROM THE THREE TREES IDENTIFIED ON PLAN SHEET C-1 FOR USE IN LOG VANES.
- D-3. DEMOLITION, REMOVAL, AND PROPER DISPOSAL OF EXISTING RETAINING WALL, RIPRAP, FENCE, AND MISCELLANEOUS STRUCTURES SHALL BE AS SHOWN. DRAIN PIPES SHALL REMAIN EXPOSED AND MARKED.
- D-4. ACCESS SHALL BE VIA THE PUBLIC RIGHT OF WAY ALONG EAST KENMORE DRIVE AT CONSTRUCTION ENTRANCE AS SHOWN ON C-1. ACCESS VIA VIRGINIAN AVENUE, OR SUBURBAN PARKWAY WITH PERMISSION OF CITY REPRESENTATIVE ONLY AND FULL RESTORATION OF EXISTING ROADWAY INFRASTRUCTURE AND SIDEWALKS.
- D-5. CONSTRUCTION SITE ON JURISDICTIONAL WETLANDS AS DELINEATED BY CDM SMITH IN 2012. SOIL COMPACTION SHALL BE LIMITED AS FEASIBLE IN AREAS WITHIN JURISDICTIONAL WETLANDS AS SHOWN ON C-1. HEAVY EQUIPMENT SHALL NOT TRANSIT OR BE STORED OVERNIGHT IN WETLAND AREAS.
- D-6. CITY PARK PROPERTY ON THE WEST SIDE OF STREAM CHANNEL MAY BE USED FOR STAGING AND ACCESS WITH EXCEPTION FOR TREE PROTECTION AREAS AS SHOWN.
- D-7. PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL CONDUCT A VIDEOTAPED INSPECTION OF THE EXISTING CONDITIONS OF THE PROJECT PERIMETER. THE CONTRACTOR SHALL MAINTAIN THE PROJECT PERIMETER AND REPAIR/REPLACE AS REQUIRED TO MATCH CONDITIONS EXISTING PRIOR TO CONSTRUCTION.
- D-8. GRANITE CURB SHALL BE REMOVED TO NEAREST JOINT FOR TEMPORARY CONSTRUCTION. ACCESS FROM EAST KENMORE DRIVE, REPLACE CURB AND REPAIR ANY DAMAGED PAVEMENT AS REQUIRED TO MATCH EXISTING CONDITIONS PER CITY OF NORFOLK STANDARDS.
- D-9. REMOVE AND TRANSPORT SOILS IN A MANNER THAT WILL PREVENT SPILLAGE ON PAVEMENTS, STREETS, OR ADJACENT AREA. CLEAN UP SPILLAGE FROM PAVEMENTS, STREETS, AND ADJACENT AREAS.
- D-10. MAINTAIN AT LEAST ONE LANE OF TRAFFIC FLOW ON ALL STREETS THROUGHOUT CONSTRUCTION.
- D-11. SAND BAGS SHALL BE USED TO BLOCK POTENTIAL STORMWATER FLOW TO EAST CHANNEL DURING DEMOLITION OF RETAINING WALL.
- D-12. RETAINING WALL FOR DEMOLITION SHALL BE CUT TO SEPARATE FROM REMAINING WALL.
- D-13. CLEARING AND GRUBBING AS REQUIRED FOR GRADING ONLY, NOT ALL ROOTS MUST BE REMOVED.

EROSION CONTROL NOTES:

- ES-1. EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION ON GENERAL NOTES SHEET G-1.
- ES-2. TEMPORARY SILT FENCE DURING DEMOLITION TO BE REMOVED WHEN GRADING CHANNEL.

TABLE 1. TREES FOR REMOVAL		
TREE TYPE	DBH (INCHES)	QUANTITY
TREE	<6	6
TREE	6	3
TREE	8	1
TREE	10	1
TREE	12	1
OAK	10	1
GUM	18	2
WILLOW	20	1
OAK	24	1
MAPLE	24	1
MAPLE	36	1
TOTAL		19

LIMITS OF CONSTRUCTION		
POINT NO.	NORTHING	EASTING
1	3498603.66	12135647.54
2	3498617.87	12135603.83
3	3498633.47	12135555.77
4	3498738.27	12135589.86
5	3498840.67	12135623.16
6	3498936.62	12135654.35
7	3499040.67	12135688.18
8	3499148.51	12135723.24
9	3499122.39	12135804.76
10	3499081.94	12135792.85
11	3499077.56	12135804.49
12	3499009.54	12135785.66
13	3498922.54	12135765.07
14	3498842.16	12135756.53
15	3498766.05	12135729.38
16	3498784.09	12135674.51
17	3498703.92	12135638.53
18	3498689.98	12135681.30

EROSION CONTROL AND DEMOLITION LEGEND

- CHESAPEAKE BAY RPA
- SEDIMENT FENCE
- WETLAND BOUNDARY
- LIMITS OF CONSTRUCTION
- CLEARING AND GRUBBING LIMITS
- ⊗ TREE REMOVAL
- ⊗ DEMOLITION
- ⊗ TEMPORARY STONE CONSTRUCTION ROAD
- ⊗ DEWATERING PUMP

REV.	NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R. HOPPER
DRAWN BY: M. KOSKI
SHEET CHK'D BY: M. BROKAW
CROSS CHK'D BY: R. HOPPER
APPROVED BY: R. HOPPER
DATE: JUNE 2015

CDM Smith
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5700 Thurston Avenue, Suite 102
Virginia Beach, VA 23455
Tel: (757) 315-9900

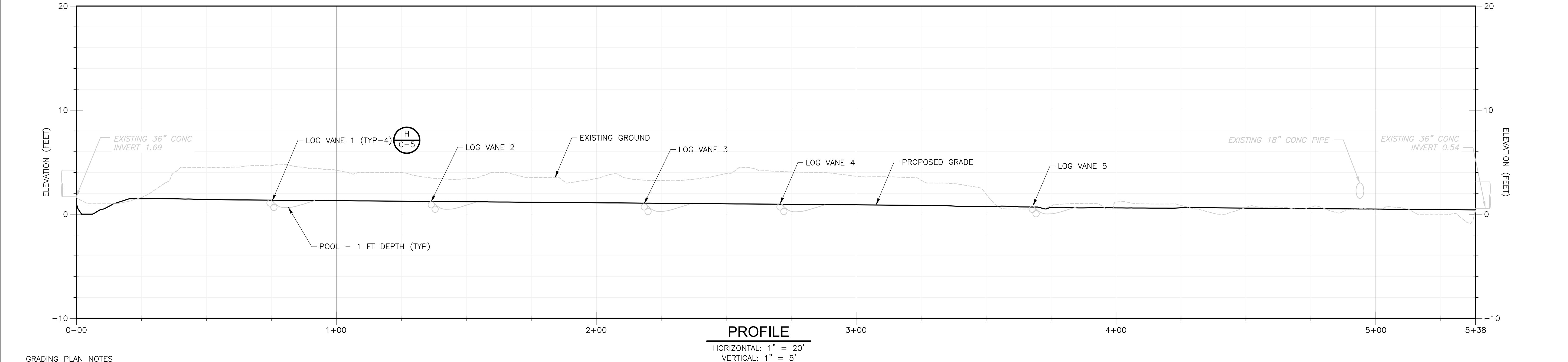
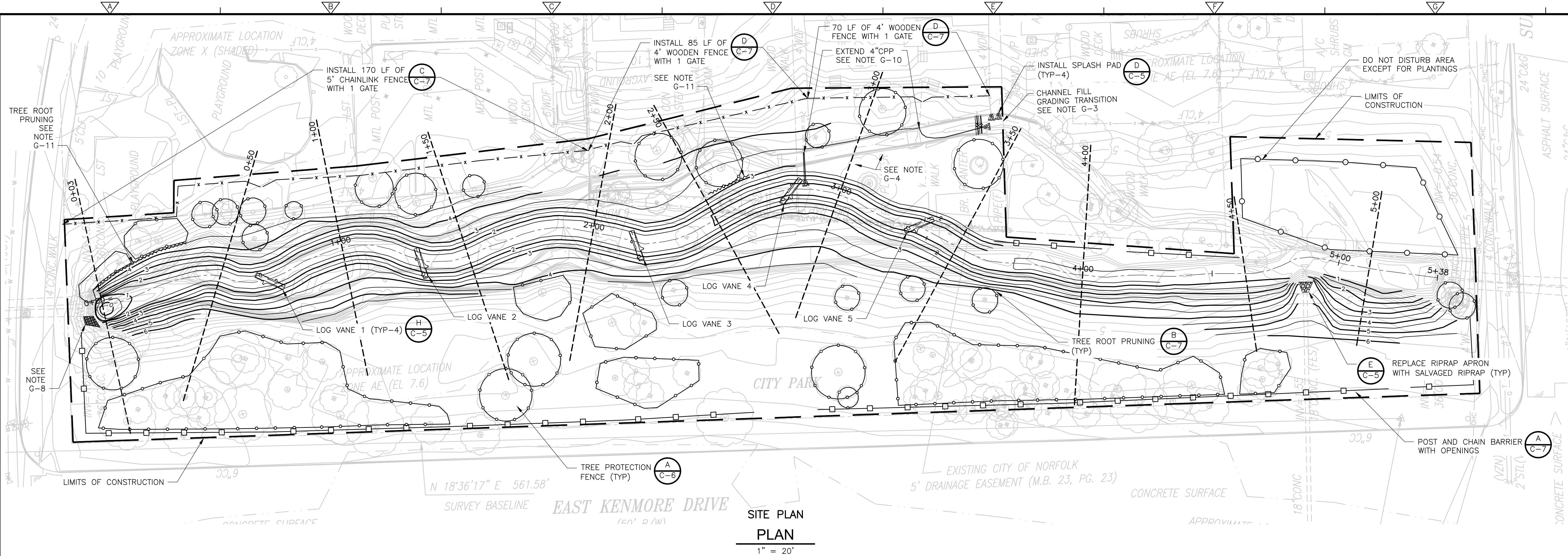
CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

EROSION CONTROL AND DEMOLITION PLAN

PROJECT NO. 1589-100395
FILE NAME: C001STPL.DWG
SHEET NO. C-1

COMMONWEALTH OF VIRGINIA
ROBERT V. HOPPER III
Lic. No. 0402052824
11/18/2015
PROFESSIONAL ENGINEER

XREFs: [CDMS_2436, RC01STPL, RC07G0PP] Images: [VA PE Seal Lic No 0402_ROBHOPPER_00r]
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GRADING PLAN NOTES

- G-1. GRADE AS REQUIRED TO OBTAIN CONTOUR ELEVATIONS AS SHOWN WITH RESPECT TO NAVD 88 AND CHANNEL DIMENSIONS WITH SIDE SLOPES AS SHOWN IN TYPICAL SECTION DETAIL F ON SHEET C-5.
- G-2. TO ESTABLISH PROPER GRADES WITHIN TOLERANCE OF 0.2 FT THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF GRADE STAKES. CONTRACTOR SHALL BE RESPONSIBLE FOR A FINAL FIELD CHECK OF FINISHED GRADES ACCEPTABLE TO THE OWNER AND THE ENGINEER.
- G-3. FILL EXISTING CHANNEL AS SHOWN ON GRADING PLAN AND SECTIONS AT MAXIMUM 3H:1V SLOPE FROM EXISTING GRADE. EXTEND 4 INCH DRAIN LINES AS SHOWN. TRANSITION FILL OF CHANNEL AND GRADING TO MEET EXISTING DITCH GRADE WITHIN 5 FEET OF LIMITS OF DISTURBANCE AS SHOWN.
- G-4. EXCAVATE FLOODPLAIN AREA TO DRAIN WITH MINIMUM 2 PERCENT SLOPE TOWARD NEW CHANNEL.
- G-5. EXCESS SOIL MATERIALS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THEIR EXPENSE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND AS SPECIFIED.
- G-6. ALL AREAS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE IN A MANNER APPROVED BY THE ENGINEER. AREAS OF THE ASPHALT ROAD, CONCRETE SIDEWALK, CONCRETE DRIVEWAYS, ETC. REMOVED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED IN ACCORDANCE WITH CITY OF NORFOLK STANDARDS.
- G-7. INSTALL OR REPLACE CHAIN LINK AND WOOD FENCES WITH GATES AS EXISTING OR AS SHOWN FOR NEW FENCE. GATES SHOWN AS BREAK IN FENCE LINE.
- G-8. INSTALL 2.5' THICK LAYER OF VDOT CLASS 1 RIPRAP UNDERLAIN WITH 8 OZ NONWOVEN GEOTEXTILE FABRIC AS SHOWN IN VOID ADJACENT TO 36" RCP END.
- G-9. DATUM IS NAVD88.

GRADING PLAN NOTES

- G-10. EXTEND 3 LENGTHS OF 4" CPP DRAIN TO DISCHARGE AT NEW ELEVATION WITH MINIMUM SLOPE OF 0.004 FT/FT. PIPE BEDDING IS SHOWN ON DETAIL FOR SHEET C-6.
- G-11. PRUNE TREE ROOTS WHERE GRADING WILL INTERSECT DRIP LINE PER DETAILS ON SHEET C-7 AND CITY ARBORIST DIRECTIONS. TREES TO REMAIN IN FILL AREAS SHALL BE GRADED AROUND. NO FILL SHALL BE PLACED WITHIN TREE DRIP LINE.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	R. HOPPER
DRAWN BY:	M. KOSKI
SHEET CHK'D BY:	Y. BANGOLAME
CROSS CHK'D BY:	
APPROVED BY:	R. HOPPER
DATE:	AUGUST 2015

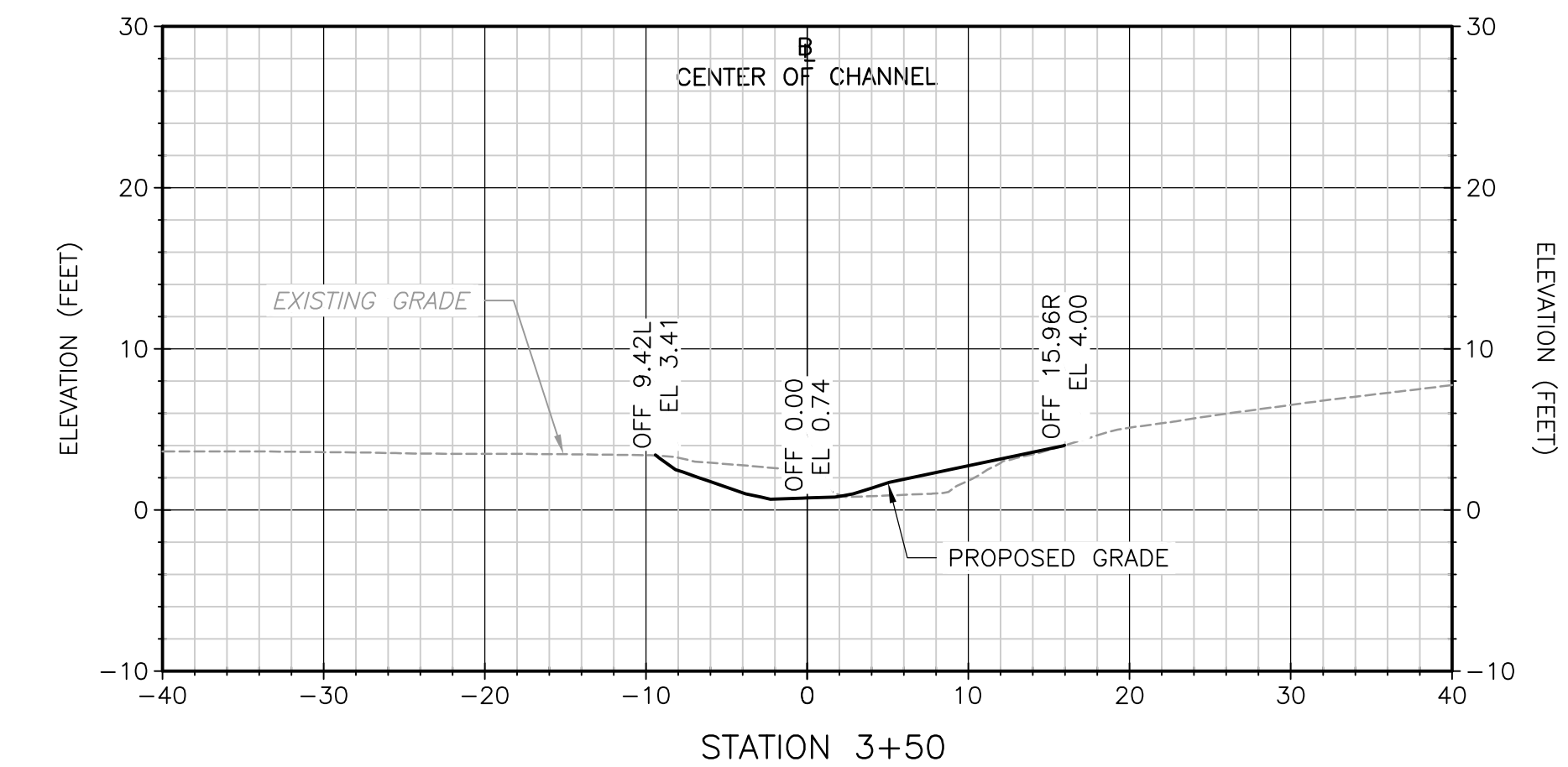
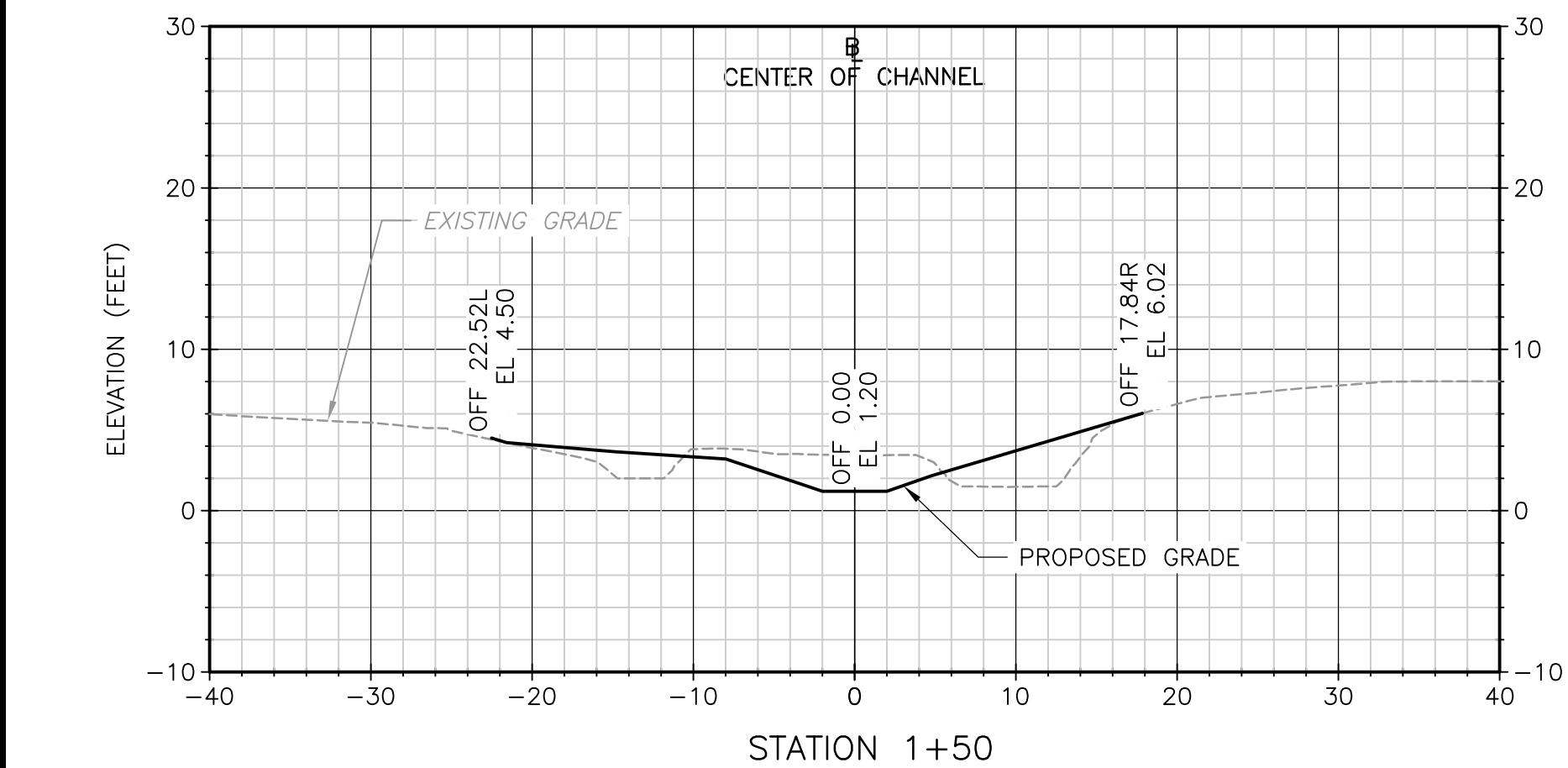
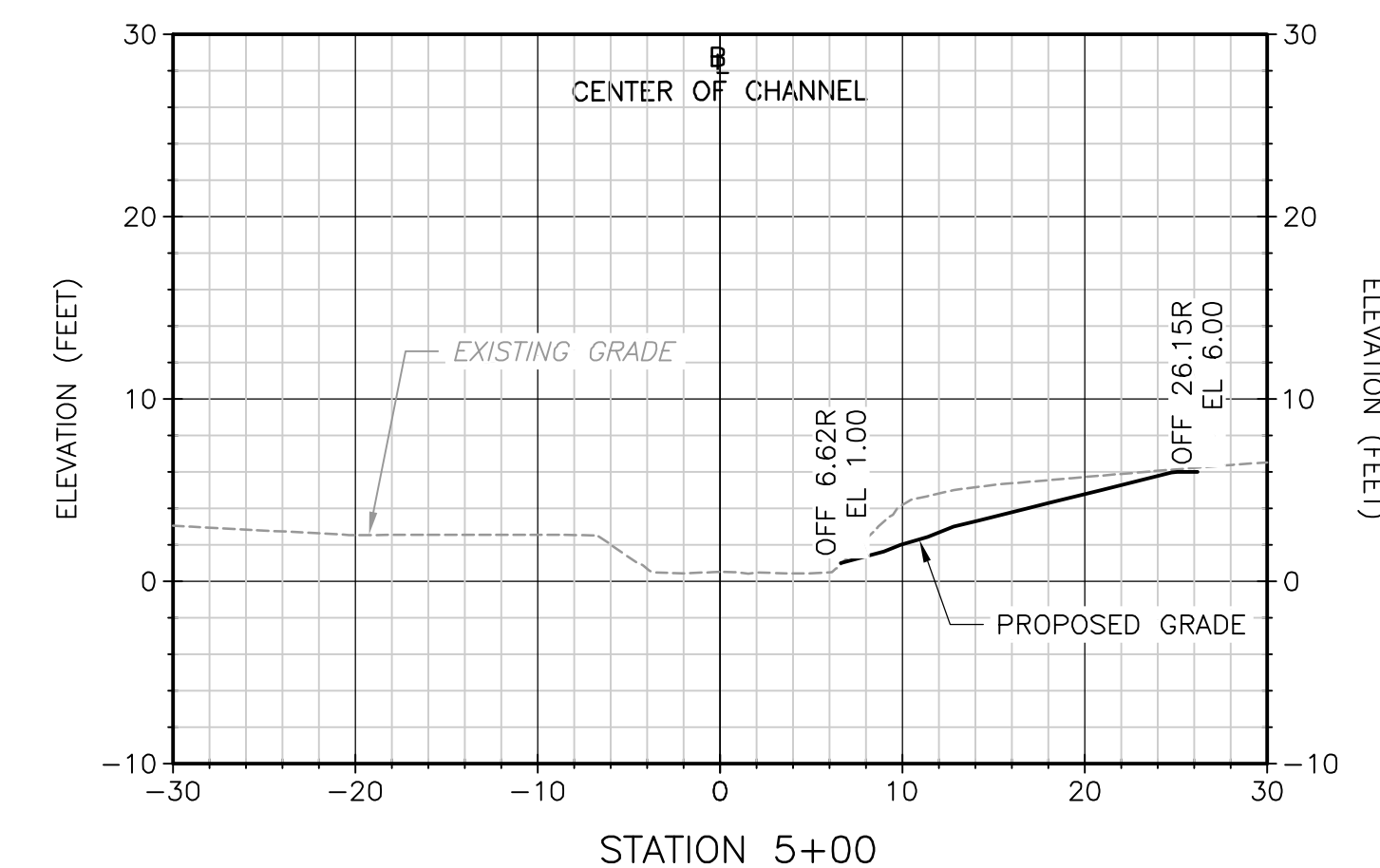
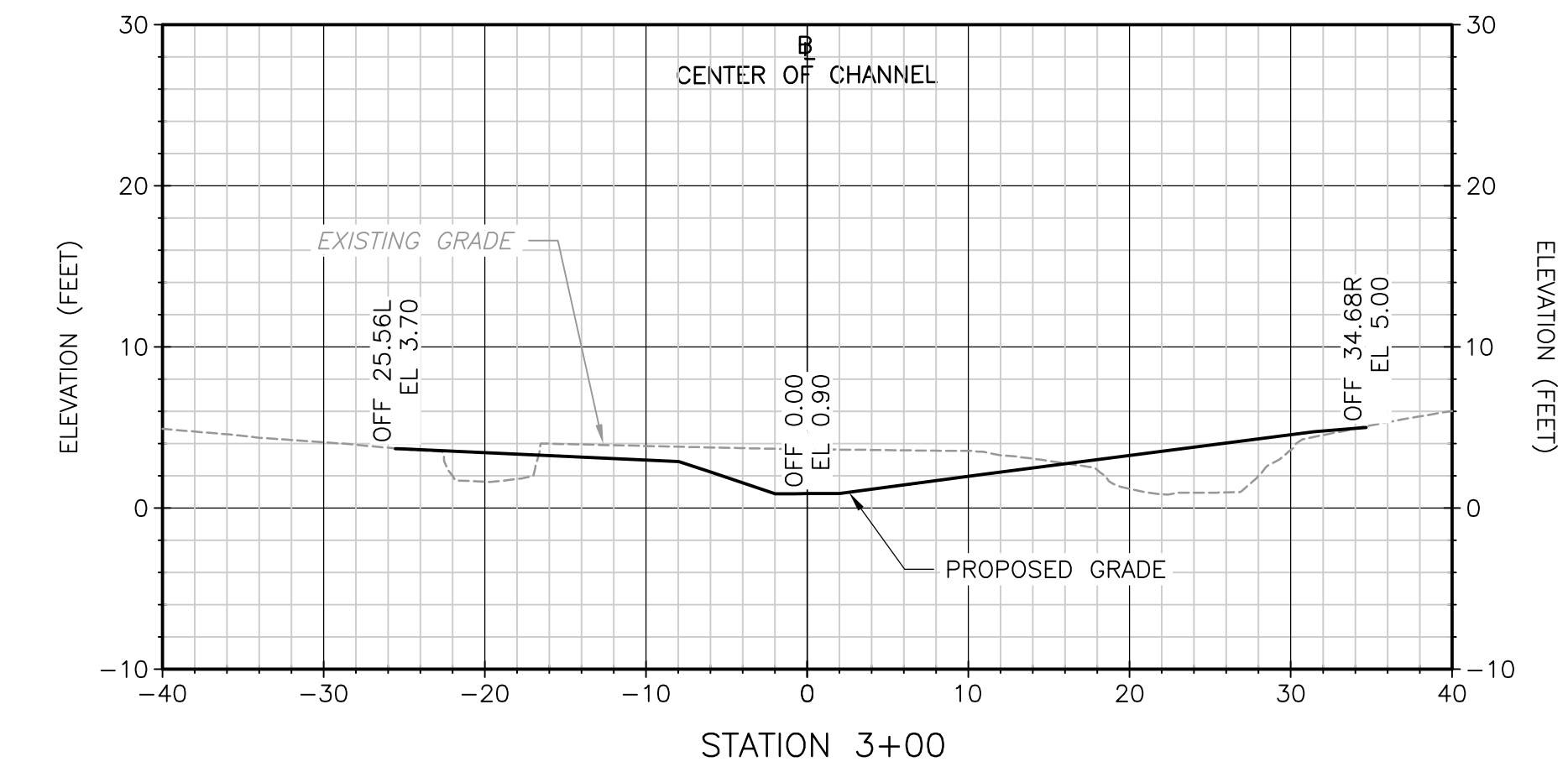
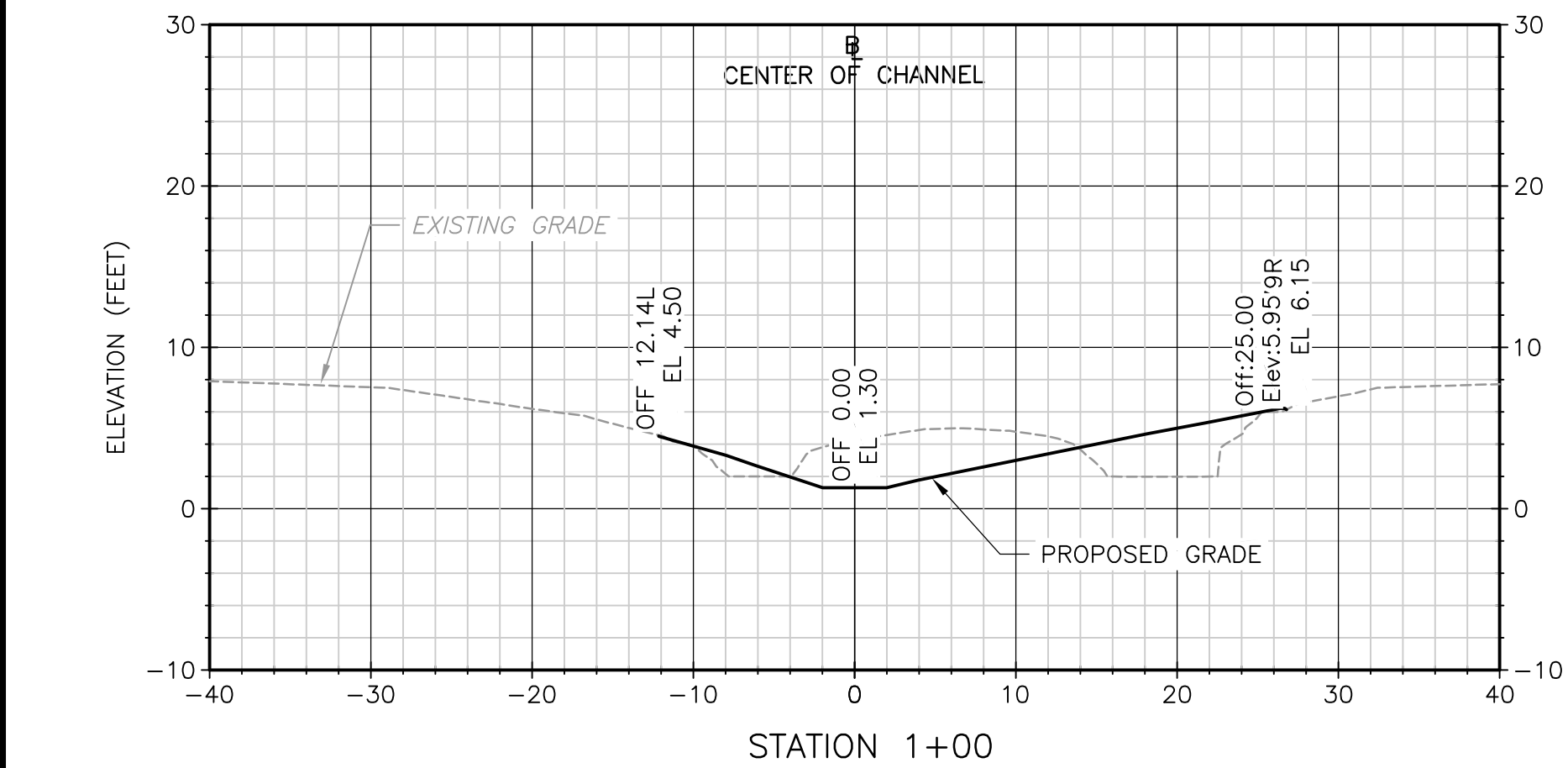
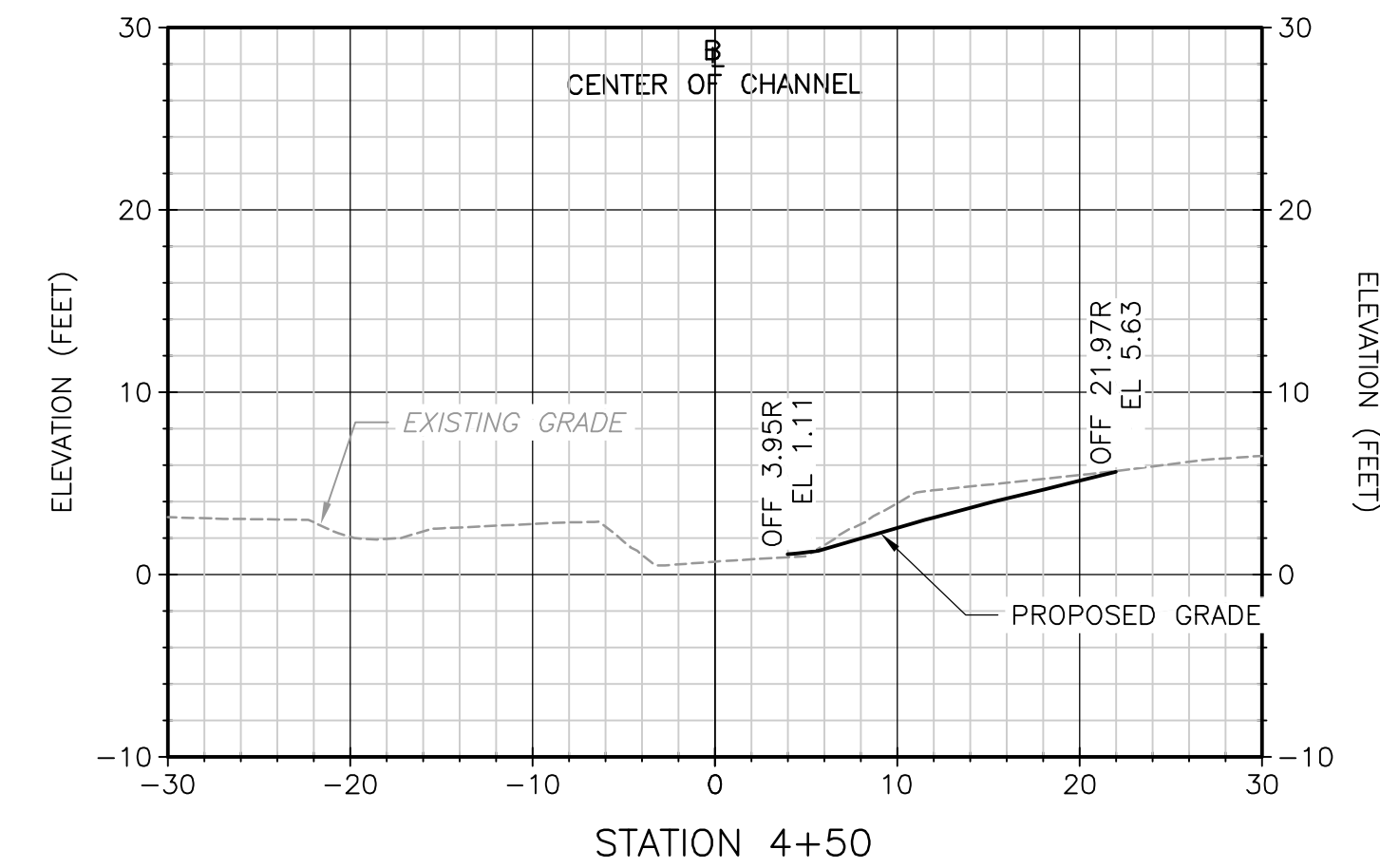
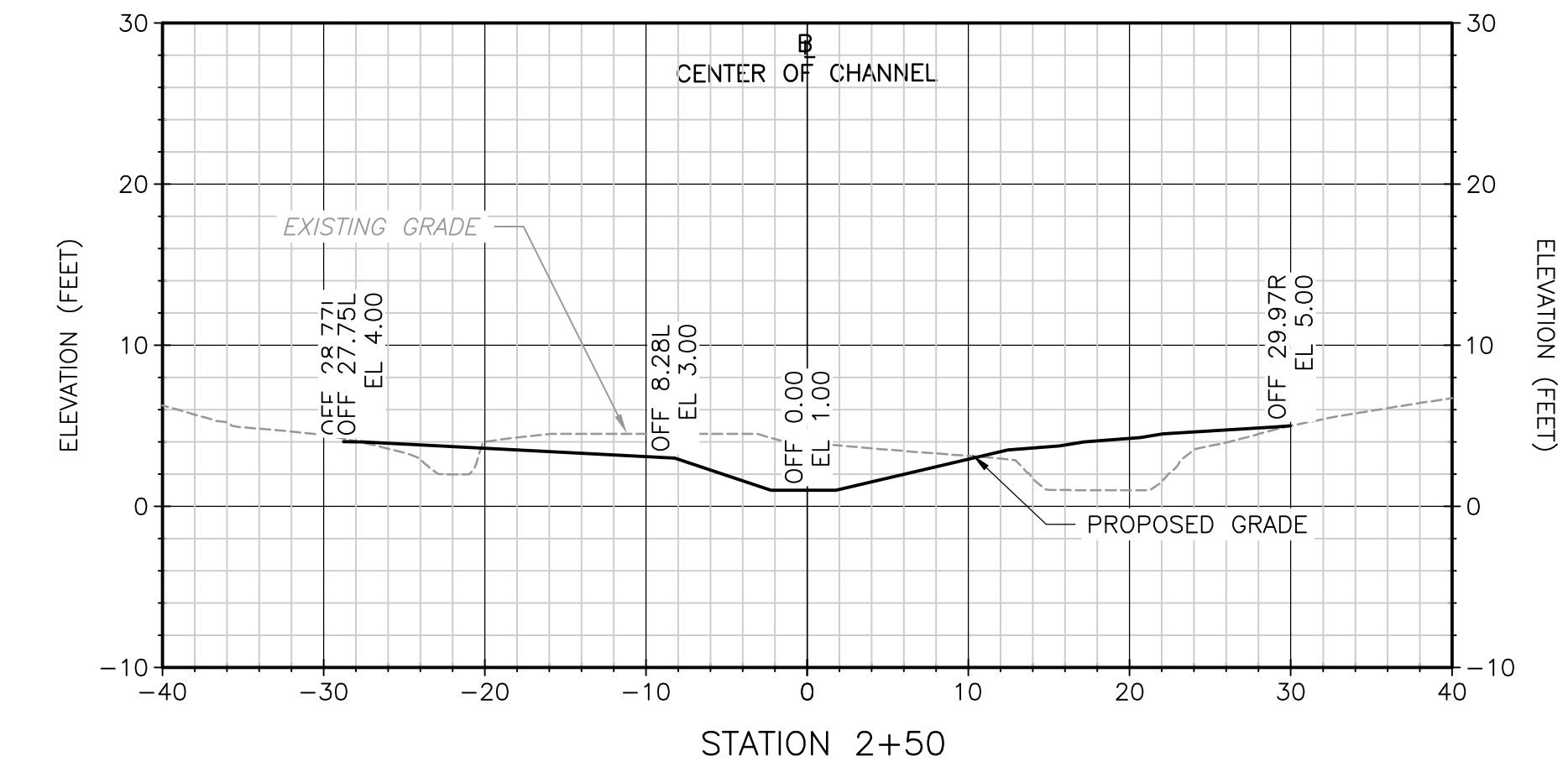
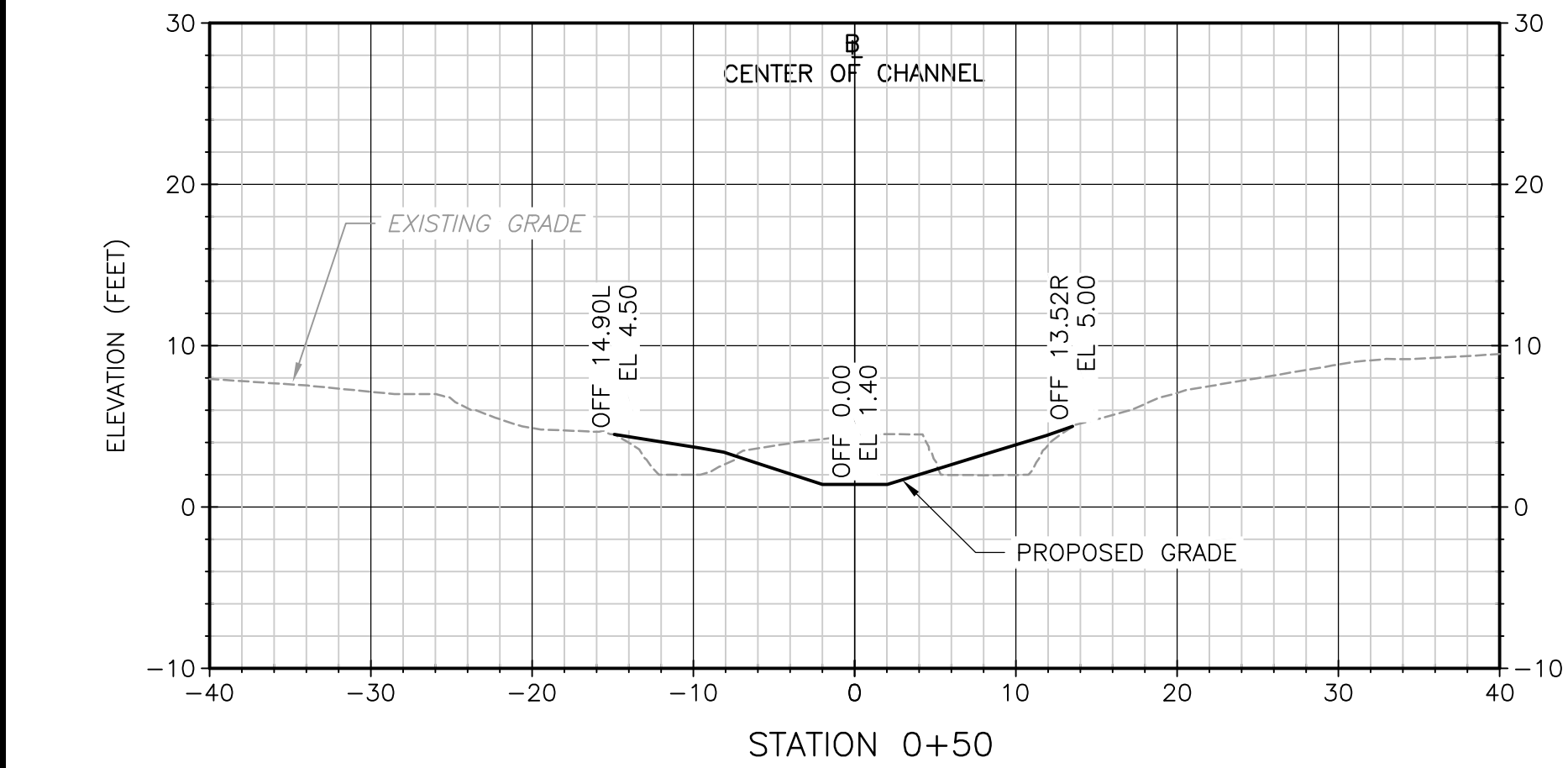
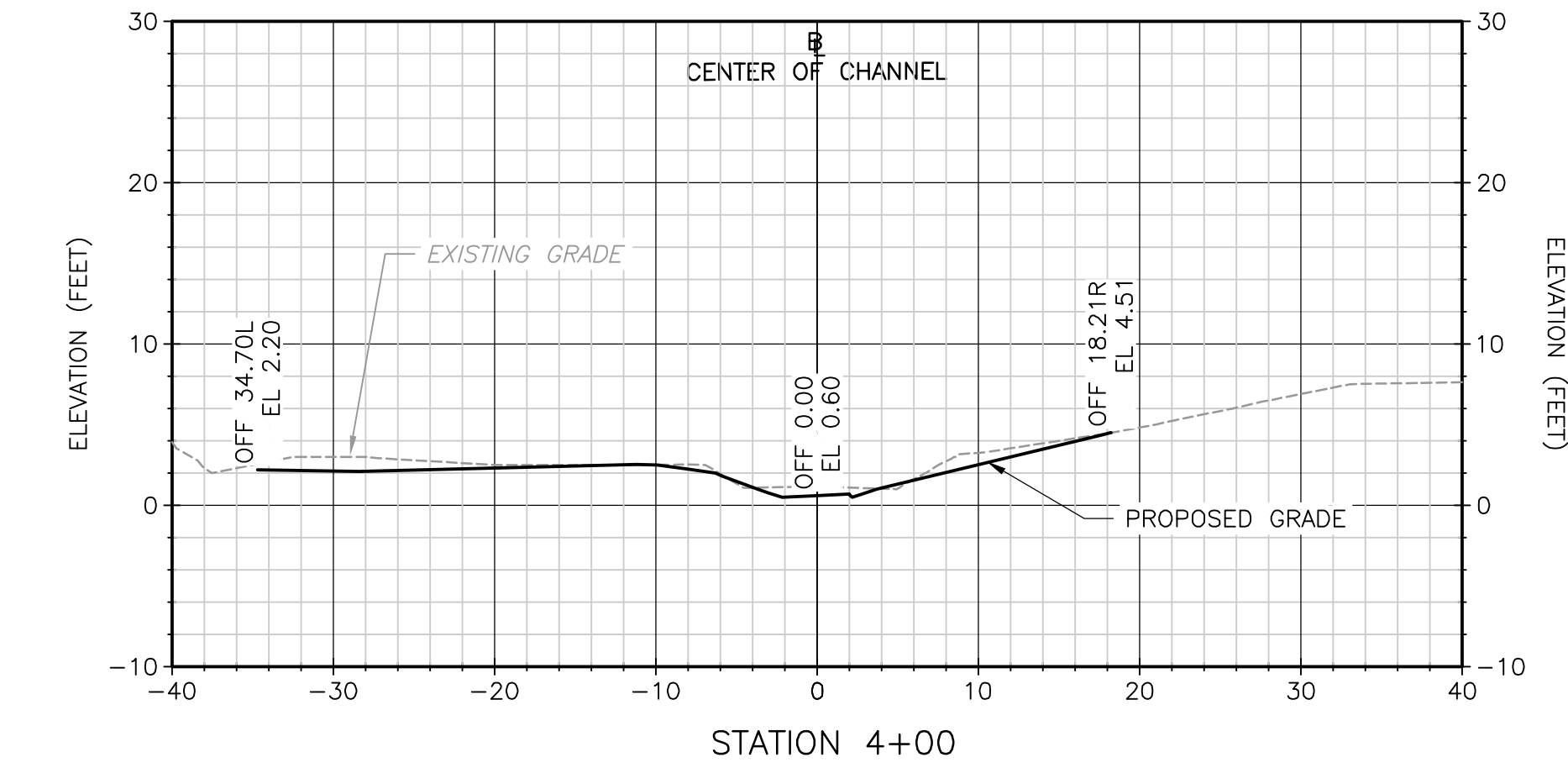
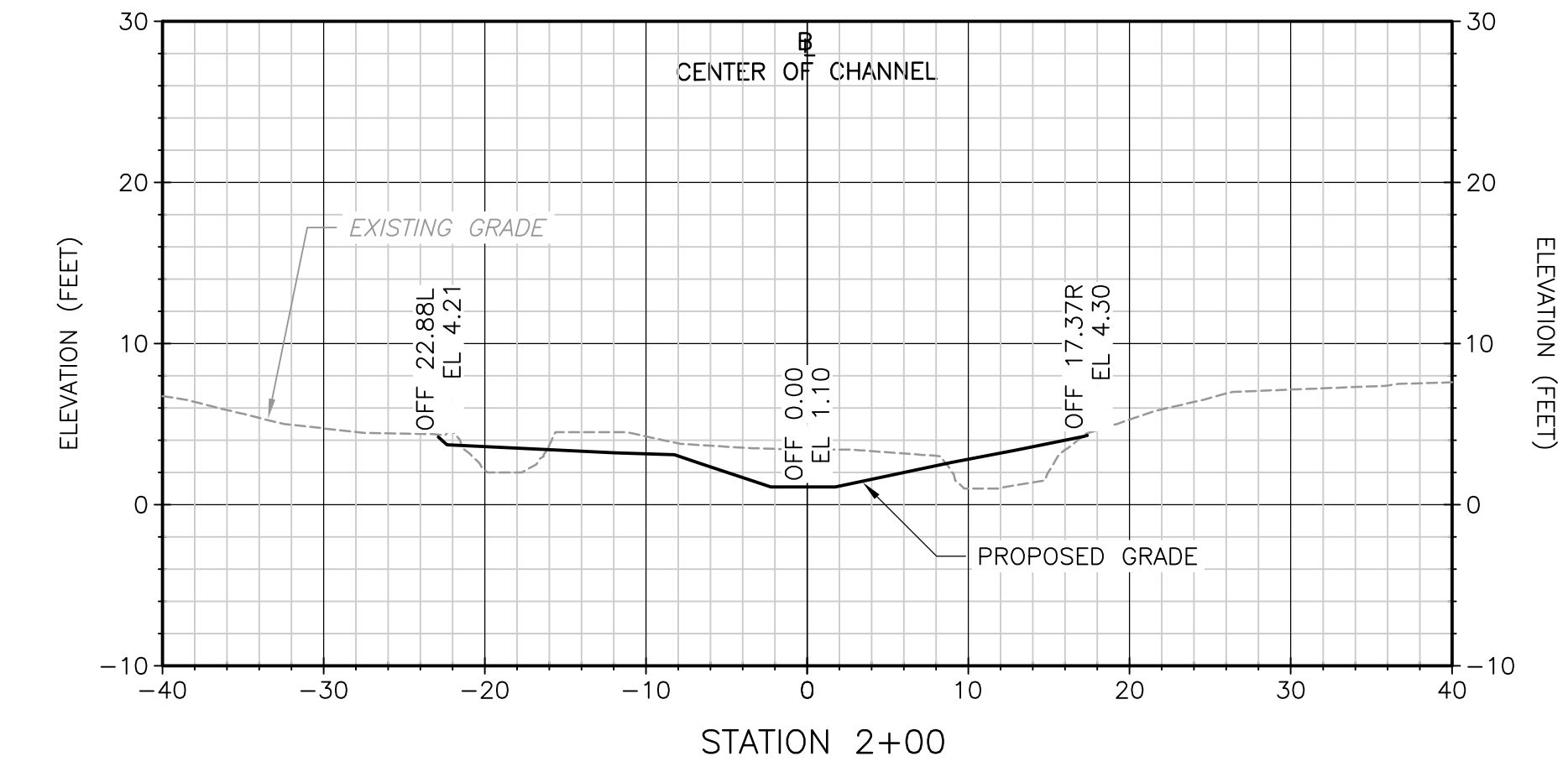
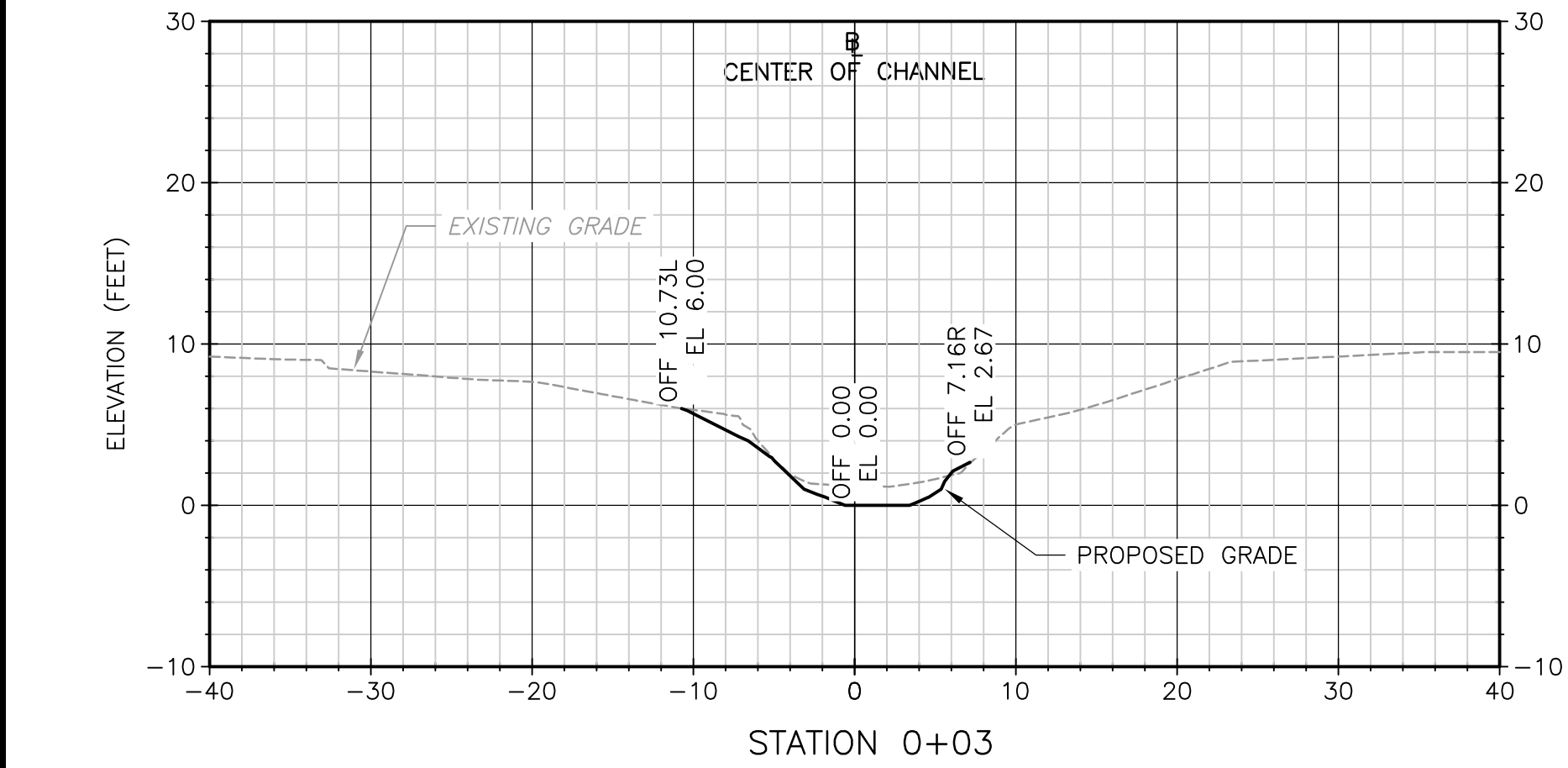
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DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

PROPOSED GRADING PLAN

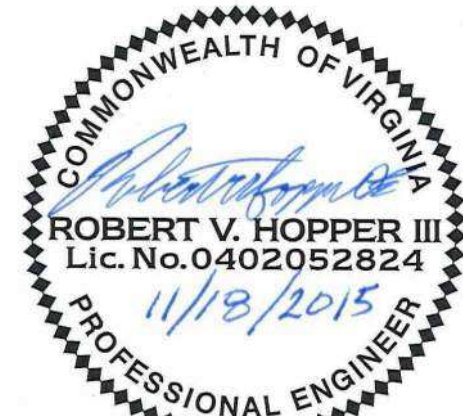
PROJECT NO.	1589-100395
FILE NAME:	C0025TPL.DWG
SHEET NO.	C-2

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NOTES:

1. SECTIONS ARE FACING DOWNSTREAM AND ORIENTED AS SHOWN ON SHEET C-2.



REV. NO.	DATE	DRWN	CHKD	REMARKS

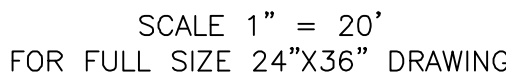
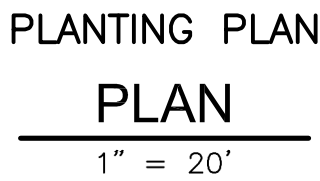
DESIGNED BY: R. HOPPER
DRAWN BY: M. KOSKI
SHEET CHK'D BY: M. BROKAW
CROSS CHK'D BY: M. BROKAW
APPROVED BY: R. HOPPER
DATE: JUNE 2015



CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

PROPOSED SECTIONS

PROJECT NO. 1589-100395
FILE NAME: C003STCS.DWG
SHEET NO. C-3



TREES AND SHRUBS					INDICATOR	
KEY	QTY.	LATIN NAME	COMMON NAME	CONDITION	STATUS	SIZE
AA	3	AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	CONTAINER	FACU	4 FT
AC	10	AMELANCHIER CANADENSIS	SHADBUSH	CONTAINER	FAC	4 FT
AR	12	ACER RUBRUM	RED MAPLE	CONTAINER	FAC	1" CALIPER
AS	17	ALNUS SERRULATA	BROOKSIDE ALDER	CONTAINER	FACW	TUBELING
BH	6	BACCHARIS HALIMIFOLIA	GROUNDSEL TREE	CONTAINER	FAC	1-GAL
BN	4	BETULA NIGRA	YIVER BIRCH	CONTAINER	FACW	1" CALIPER
CA	9	CORNUS AMOMUM	SILKY DOGWOOD	LIVE STAKE	FACW	TUBELING
CC	6	CERCIS CANADENSIS	REDBUD	CONTAINER	UPL	1" CALIPER
QG	5	QUERCUS GEMINATA	SAND LIVE OAK	CONTAINER	FAC	1" CALIPER
CO	11	CERAPLANTHUS OCCIDENTALIS	BUTTONBUSH	CONTAINER	OBL	TUBELING
FP	8	FRAXINUS PENNSYLVANICA	GREEN ASH	CONTAINER	FACW	1" CALIPER
IO	4	ILEX OPACA	AMERICAN HOLLY	CONTAINER	FAC	1" CALIPER
IV	8	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	CONTAINER	FACW	1-GAL
LT	4	LIRIODENDRON TULIPIFERA	TULIP POPLAR	CONTAINER	FACU	1" CALIPER
MC	1	MORELLA CERIFERA	SOUTHERN BAYBERRY	CONTAINER	FAC	1-GAL
MV	7	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	CONTAINER	FACW	
QA	5	QUERCUS ALBA	WHITE OAK	CONTAINER	FACU	1" CALIPER
QM	5	QUERCUS MICHAUXII	SWAMP CHESTNUT OAK	CONTAINER	FACW	1" CALIPER
QP	6	QUERCUS PHELLOS	WILLOW OAK	CONTAINER	FACW	1" CALIPER
SA	9	SAMBUCUS NIGRA	AMERICAN ELDERBERRY	CONTAINER	FACW	TUBELING
SN	6	SALIX NIGRA	BLACK WILLOW	LIVE STAKE	OBL	2' TO 3' LONG, 0.5" TO 1" DIA
SN	6	SALIX NIGRA	BLACK WILLOW	CONTAINER	OBL	TUBELING
SS	6	SALIX SERICEA	SILKY WILLOW	LIVE STAKE	OBL	2' TO 3' LONG, 0.5" TO 1" DIA
TD	6	TAXODIUM DISTICHUM	BALD CYPRESS	CONTAINER	FACW	1" CALIPER
VC	6	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	CONTAINER	FACW	1-GAL
VD	2	VIRBURNUM DENTATUM	SOUTHERN ARROWWOOD	CONTAINER	FAC	1-GAL
VN	5	VIRBURNUM NUDUM	POSSUMHAW	CONTAINER	FACW	1-GAL

HERBACEOUS PLANTS						INDICATOR
KEY	QTY.	LATIN NAME	COMMON NAME	CONDITION	SPACING	STATUS
AT	16	ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	PLUG	5' O.C.	UPL
EP	16	EUTROCHUM PURPUREUM	SWEET SCENTED JOE PYE WEED	PLUG	5' O.C.	FAC
HA	16	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLUG	5' O.C.	FAW
HM	16	HIBISCUS MOSCHEutos	MARSH HIBISCUS	4" CONTAINER	8' O.C.	OBL
KP	16	KOSTELETZYA PENTACARPOS	SEA-SHORE MALLOW	PLUG	3' O.C.	OBL
MP	16	MONARDA PUNCTATA	SPOTTED BEEBALM	PLUG	5' O.C.	FACU
PD	16	PHLOX DIVARICATA	WOODLAND PHLOX	PLUG	3' O.C.	FACU
PV	16	PHYSOSTEGIA VIRGINIANA	OBEDIENT PLANT	PLUG	4' O.C.	FACW
PC	16	PONTERERIA CORDATA	PICKERELWEED	PLUG	5' O.C.	OBL
RF	16	RUDEBECKIA FULGIDA	ORANGE CONEFLOWER	PLUG	4' O.C.	FAC
SC	16	SAURURUS CERNUUS	LIZARD'S TAIL	PLUG	3' O.C.	OBL
VE	16	VERNONIA NOVOBORACENSIS	NEW YORK IRONWEED	PLUG	5' O.C.	FACW

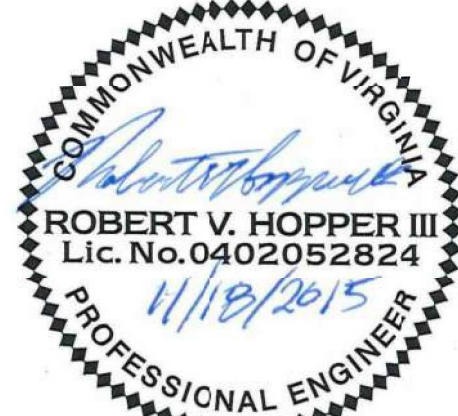
NOTE: PLUGS SHALL HAVE A MINIMUM OF 2.5" DIAMETER AND 4" DEPTH

UPPER WETLAND SEED MIX			WETLAND INDICATOR
%PLS	LATIN NAME	COMMON NAME	
10	CHASMANTHIUM LATIFOLIUM	RIVER OATS	FAC
5	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	FAC
5	JUNCUS TENUIUS	SLENDER RUSH	FAC
10	PANICUM VIRGATUM	SWITCHGRASS	FAC
10	ANDROPOGON GLOMERATUS	BUSHY BEARDGRASS	FACW
5	CAREX CRINITA	FRINGED SEDGE	FACW
10	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	FACW
5	RHEXIA VIRGINICA	VIRGINIA MEADOW BEAUTY	FACW
5	RUDEBECKIA LACINIATA	GREEN-HEAD CONEFLOWER	FACW
5	BIDENS CERNUA	NODDING BUR MARIGOLD	OBL
5	CAREX LURIDA	LURID SEDGE	OBL
5	GLYCERIA STRIATA	FOWL MANNA GRASS	OBL
5	JUNCUS CANADENSIS	CANADIAN RUSH	OBL
5	MIMULUS RINGENS	SQUARE-STEMMED MONKEY FLOWER	OBL
10	SCIRPUS CYPERINUS	WOOLGRASS	OBL

1. THE PLANTED TREES AND SHRUBS SHALL BE LOCATED AS SHOWN ON PLANTING PLAN.
2. ABBREVIATIONS:
 - HT — HEIGHT
 - CAL — CALIBER
 - QTY — QUANTITYWETLAND INDICATORS:
 - OBL — OBLIGATE
 - FACW — FACULTATIVE WETLAND
 - FAC — FACULTATIVE
 - FACU — FACULTATIVE UPLAND
 - UPL — UPLAND
3. REFER TO SPECIFICATION 02900 FOR SEED MIXTURES. SEED SHALL BE APPLIED AT 30 POUNDS PER ACRE.
4. NO TREES OR SHRUBS SHALL BE PLANTED WITHIN 5 FT OF SIDEWALKS OR WITHIN 20 FT OF ROAD. TURF GRASS AS SPECIFIED SHALL BE SEEDED AND MULCHED WITHIN 5 FT OF SIDEWALKS OR WITHIN 20 FT OF ROAD.
5. DETAILS FOR PLANTING TREES, SHRUBS, AND HERBACEOUS PLUGS ON SHEET C-5, DETAILS A, B, AND C.
6. ALL OTHER DISTURBED AREAS OUTSIDE DESIGNATED ZONES SHALL BE SEEDED WITH TURF GRASS AS SPECIFIED. RESIDENTIAL LAWNS SHALL BE SEEDED TO MATCH EXISTING TURF. PARK AREA SHALL BE LOAMED, SEEDED, AND MULCHED WITH GRASS MIXTURE PER SPECIFICATION 02900 AND DETAIL J ON SHEET C-5.

LOWER WETLAND SEED MIX			WETLAND
%PLS	LATIN NAME	COMMON NAME	INDICATOR
10	ANDROPOGON GLOMERATUS	BUSHY BEARDGRASS	FACW
10	CAREX LURIDA	LURID SEDGE	OBL
10	DISTICHIS SPICATA	SPIKE GRASS	OBL
10	GLYCERIA STRIATA	FOWL MANNA GRASS	OBL
10	JUNCUS ROEMERIANUS	BLACK NEEDLERUSH	OBL
10	HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	FACW
5	LOBELIA CARDINALIS	CARDINAL FLOWER	FACW
5	SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	FACW
10	SCIRPUS CYPERINUS	WOOLGRASS	OBL
5	SCHOENOPLECTUS PUNGENS	COMMON THREESQUARE	OBL
5	SPARGANIUM AMERICANUM	EASTERN BUR-REED	OBL
5	SYMPHYOTRICHUM NOVI-BELGII	NEW YORK ASTER	OBL

BUFFER SEED MIX			WETLAND INDICATOR
%PLS	LATIN NAME	COMMON NAME	
5	AGERATIA ALTISSIMA	WHITE SNAKEROOT	FACU
5	AGROSTIS PERENNANS	AUTUMN BENTGRASS	FACU
10	ANDROPOGON TERNARIUS	SPLITBEARD BLUESTEM	FACU
5	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	FACU
10	CHASMANTHIUM LATIFOLIUM	RIVER OATS	FAC
5	ELYMUS HYSTRIX	EASTERN BOTTLE-BRUSH GRASS	UPL
5	ELYMUS VIRGINICUS	VIRGINIA WILDREY	FAC
5	EUTROCHIUM PURPUREUM	SWEET JOE-PYE WEED	FAC
5	LIATRIS SPICATA	DENSE BLAZING STAR	FAC
10	PANICUM VIRGATUM	SWITCHGRASS	FAC
5	PENSTEMON LAEVIUS	EASTERN SMOOTH BEARDTONGUE	FAC
5	RUDBECKIA FULGIDA	ORANGE CONEFLOWER	FAC
10	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
5	SOLIDAGO RUGOSA	WRINKLE-LEAF GOLDENROD	FAC
10	SORGHASTRUM NUTANS	INDIANGRASS	UPL



						DESIGNED BY: <u>L. BURBAGE</u>
						DRAWN BY: <u>R. HOPPER</u>
						SHEET CHK'D BY: <u>L. BURBAGE</u>
						CROSS CHK'D BY: _____
						APPROVED BY: <u>R. HOPPER</u>
						DATE: <u>AUGUST 2015</u>
REV. NO.	DATE	DRWN	CHKD	REMARKS		

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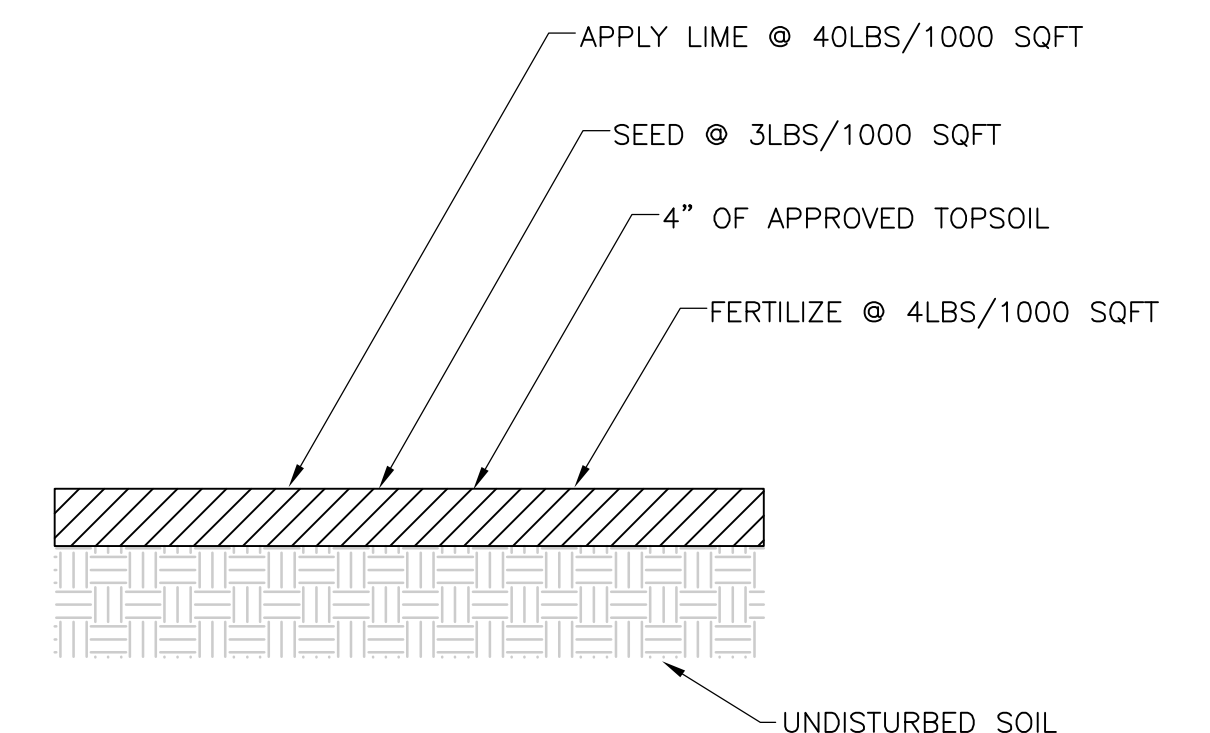
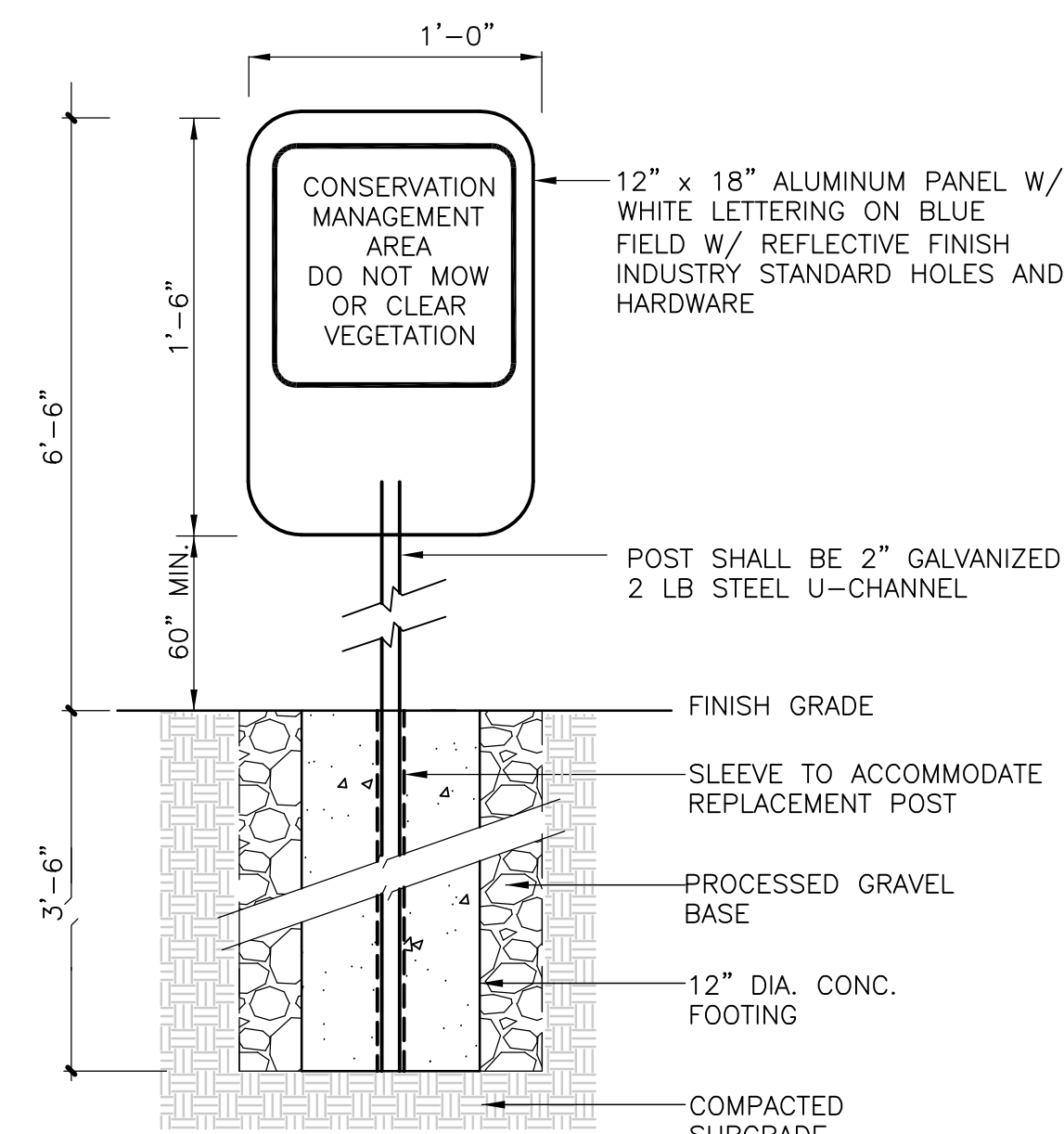
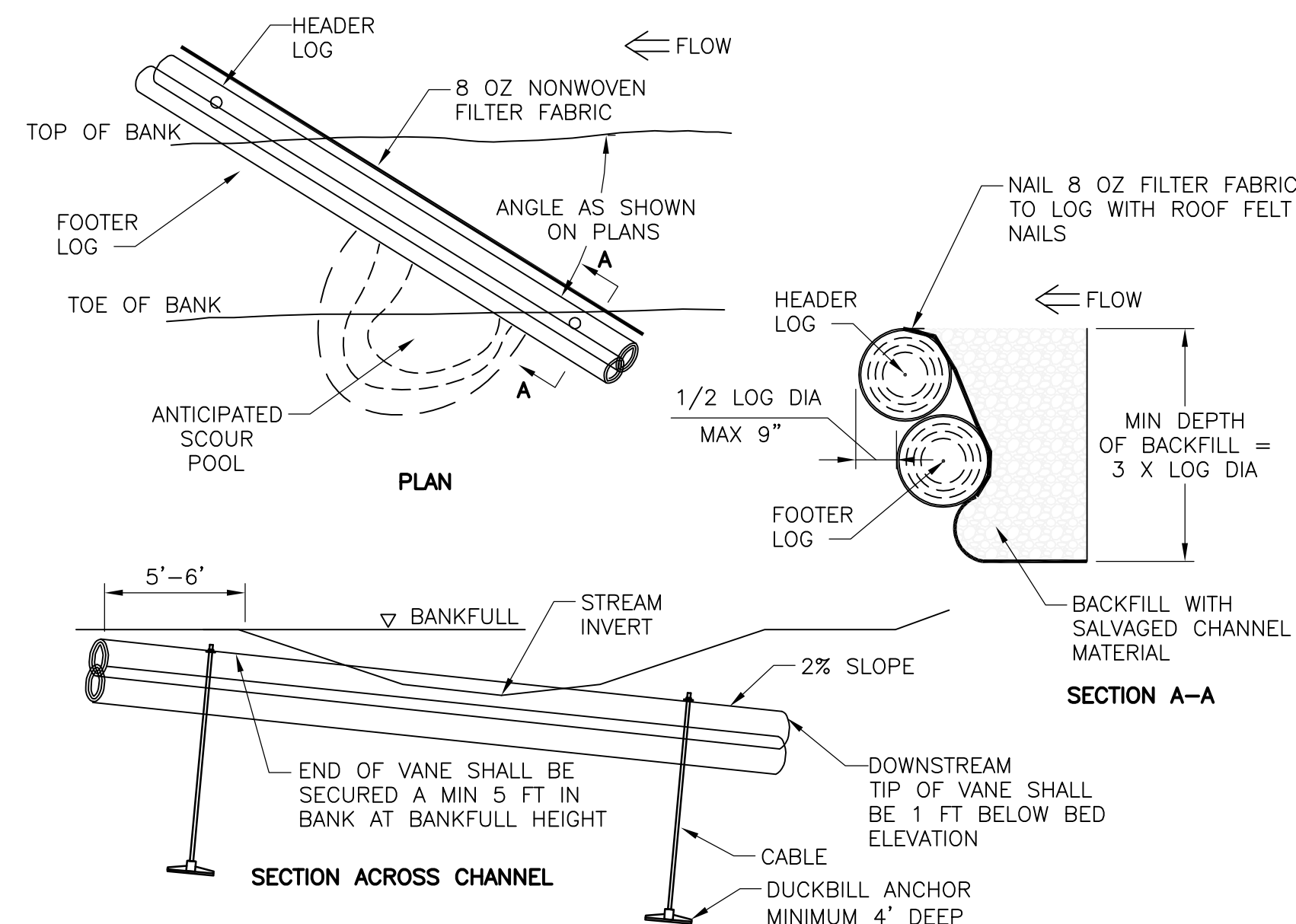
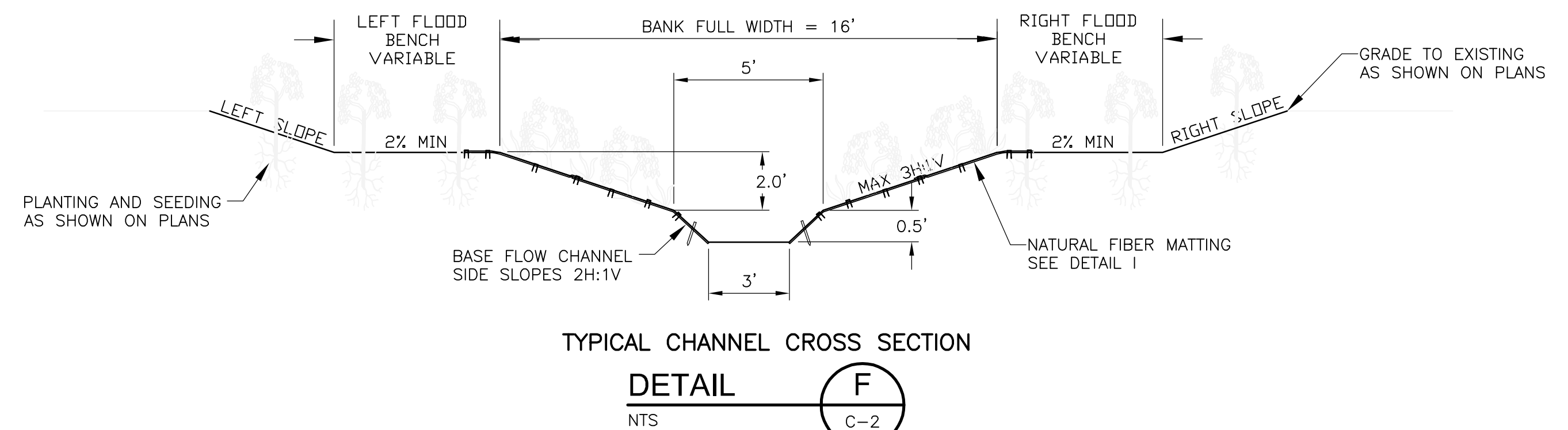
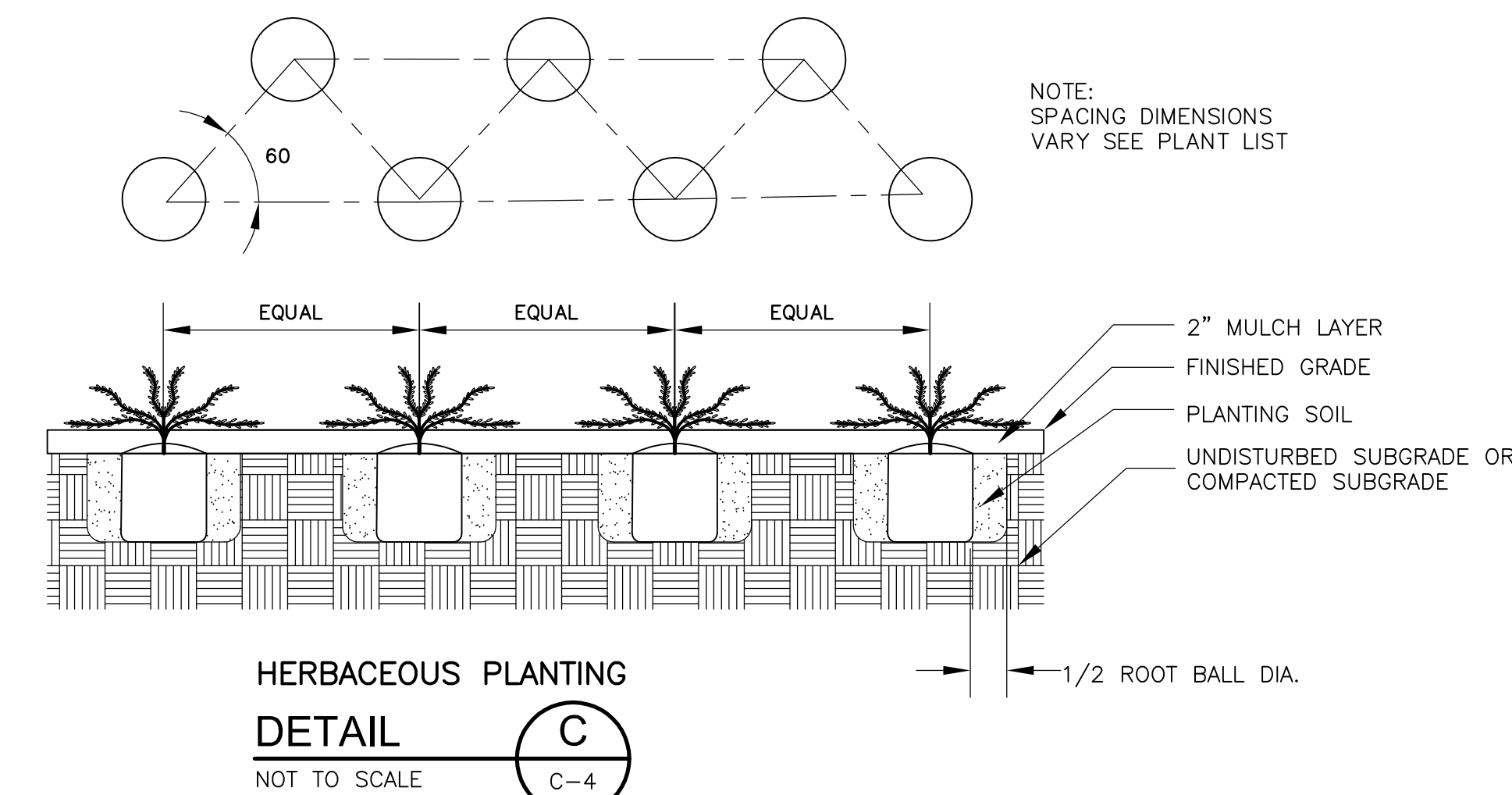
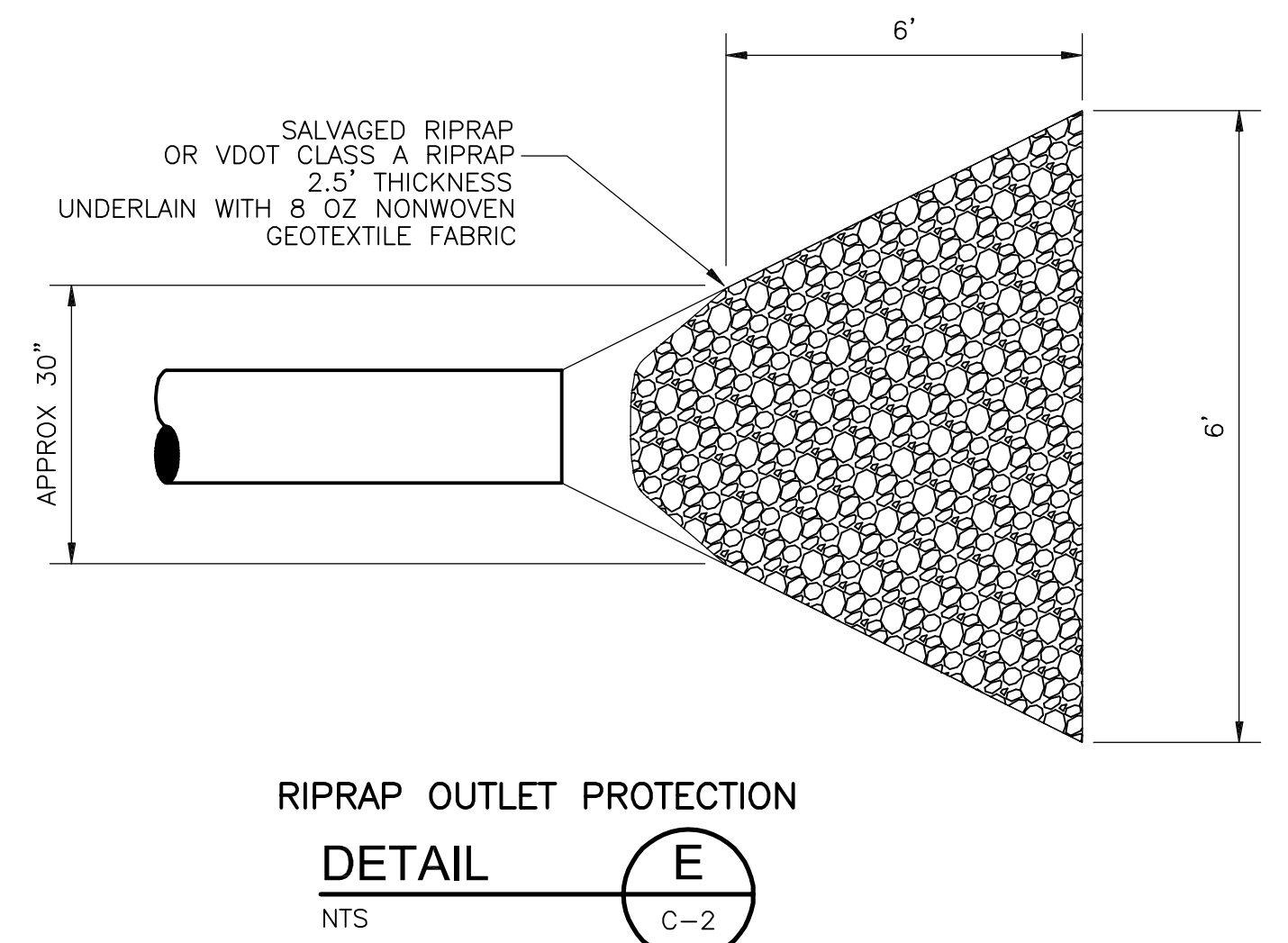
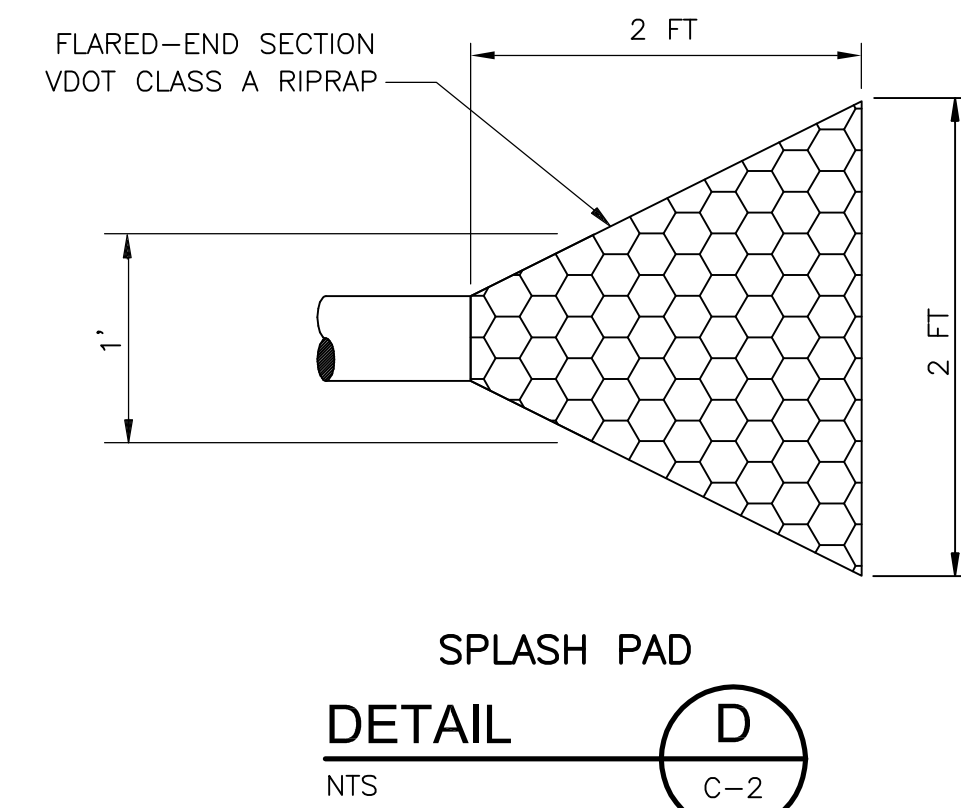
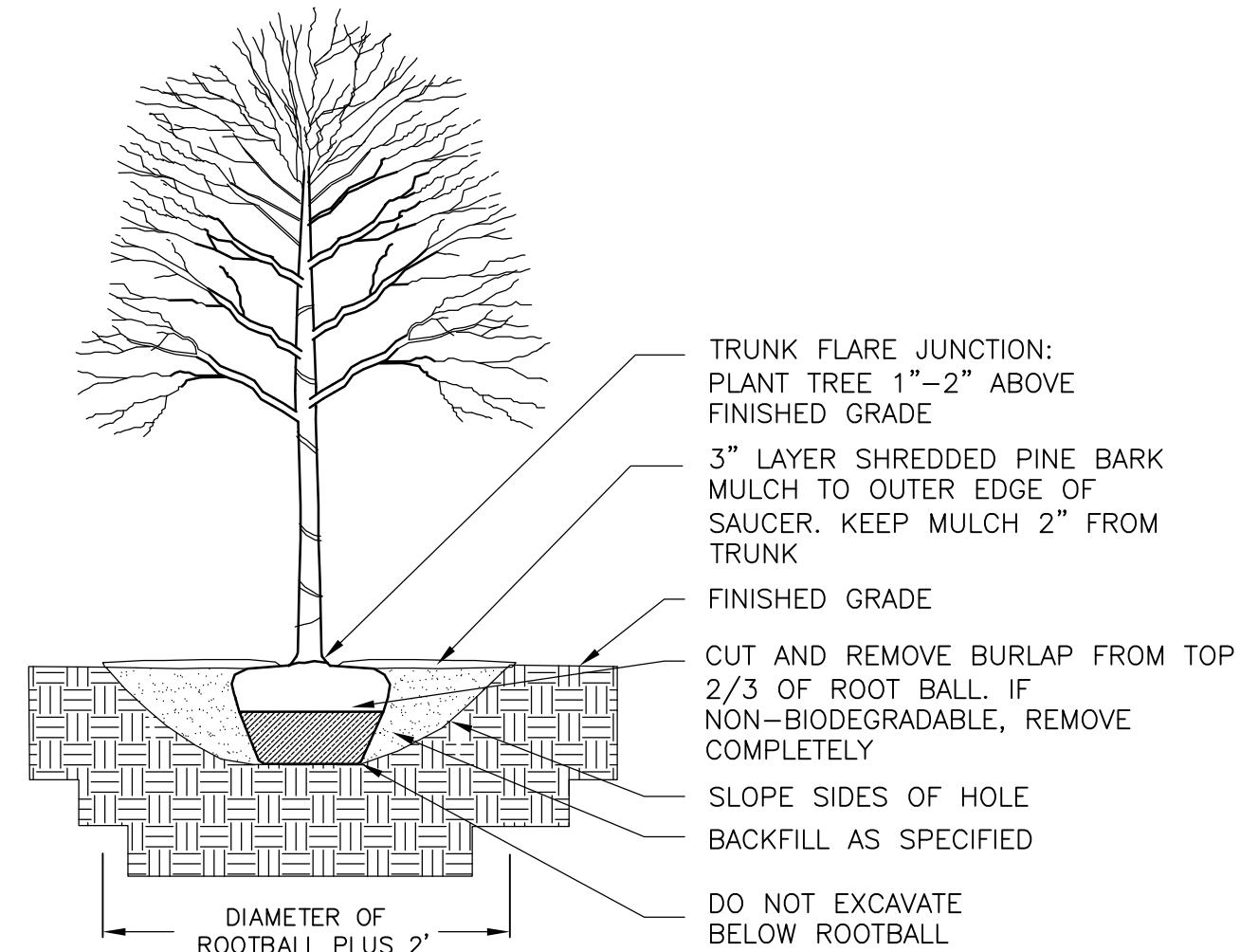
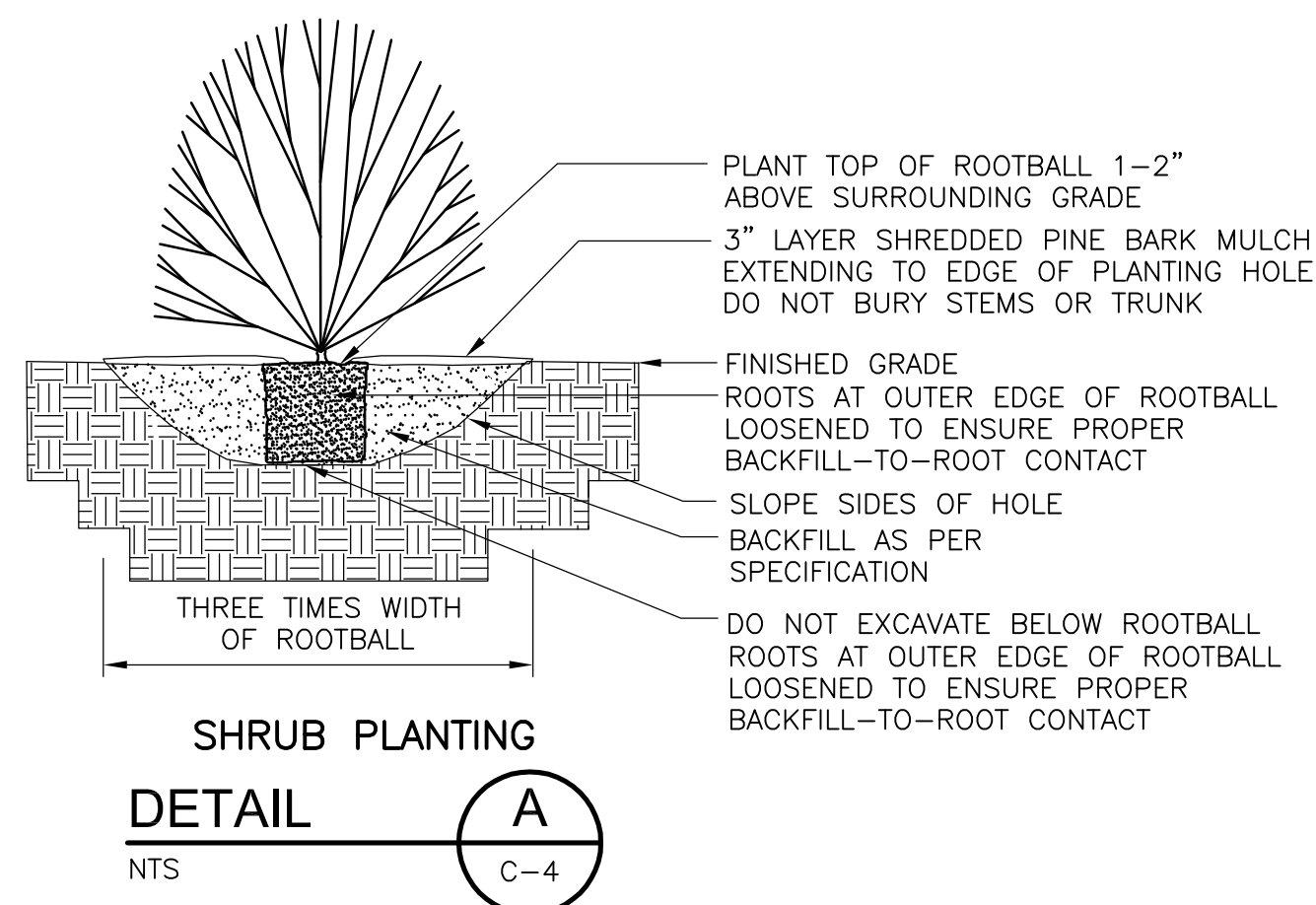
CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

PROPOSED PLANTING PLAN

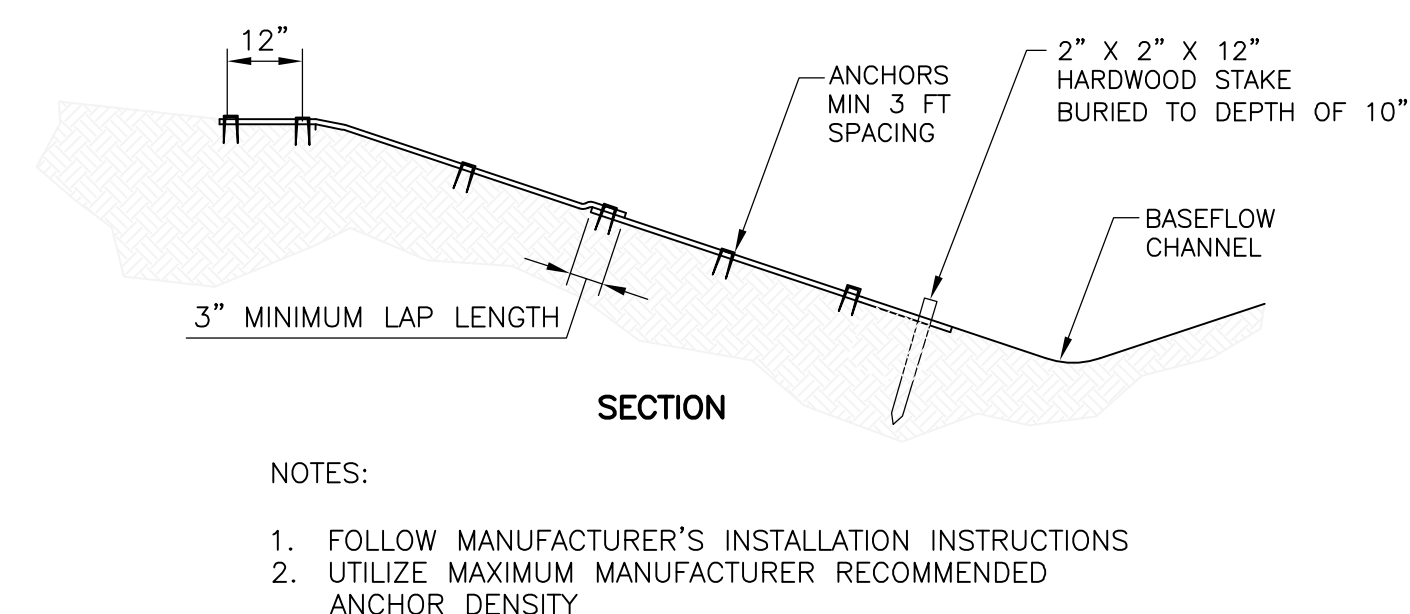
PROJECT NO. 1589-100395
FILE NAME: C004STPL.DWG

SHEET NO.

C-4



LOG VANE SCHEDULE					
STRUCTURE	STATION	CENTERLINE PROFILE AT ELEVATION	BANKFULL WIDTH	1/3 BANKFULL WIDTH	BANKFULL DEPTH
LV1	0+75	1.35	15.5	5.17	2.0
LV2	1+37	1.25	15.5	5.17	2.0
LV3	2+20	1.05	15.5	5.17	2.0
LV4	2+70	0.95	15.5	5.17	2.0
LV5	3+60	0.80	15.5	5.17	2.0

[illegible]

DESIGNED BY: _____ R. HOPPER
DRAWN BY: _____ M. KOSKI
SHEET CHK'D BY: _____ M. BROKAW
CROSS CHK'D BY: _____
APPROVED BY: _____ R. HOPPER
DATE: _____ AUGUST 2015

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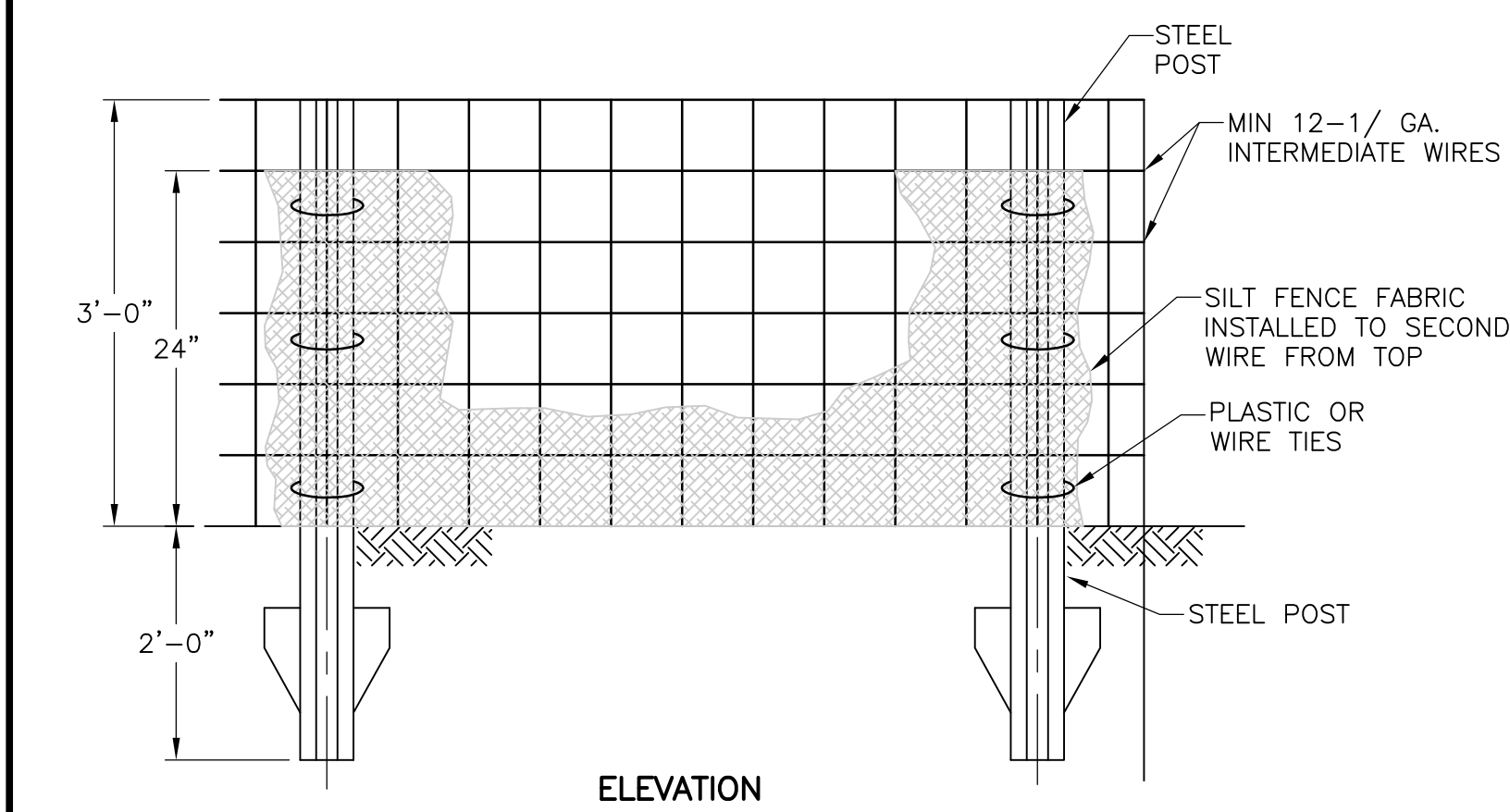
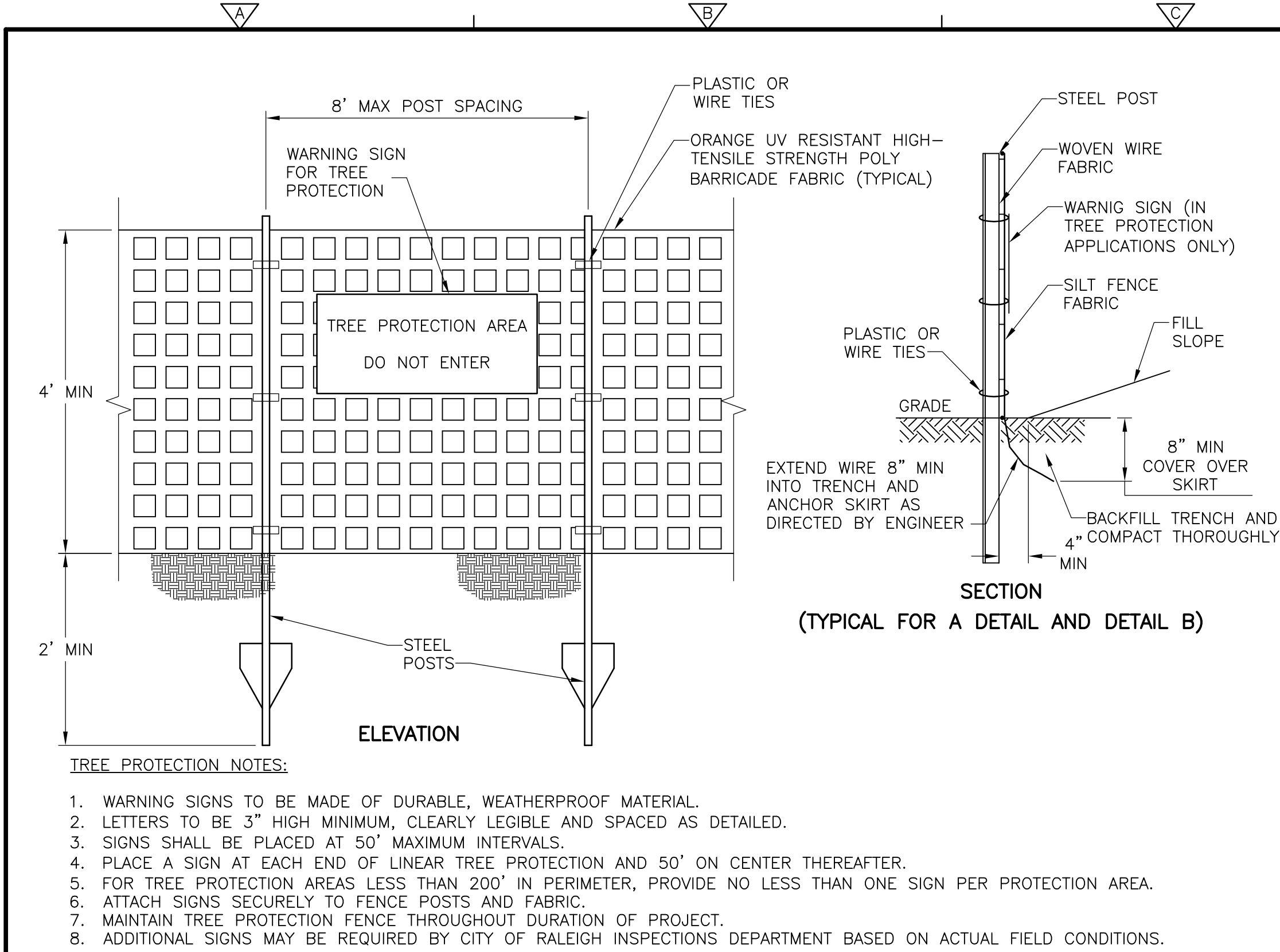
DETAILS

PROJECT NO. 1589-100395
FILE NAME: C005STDT.DWG

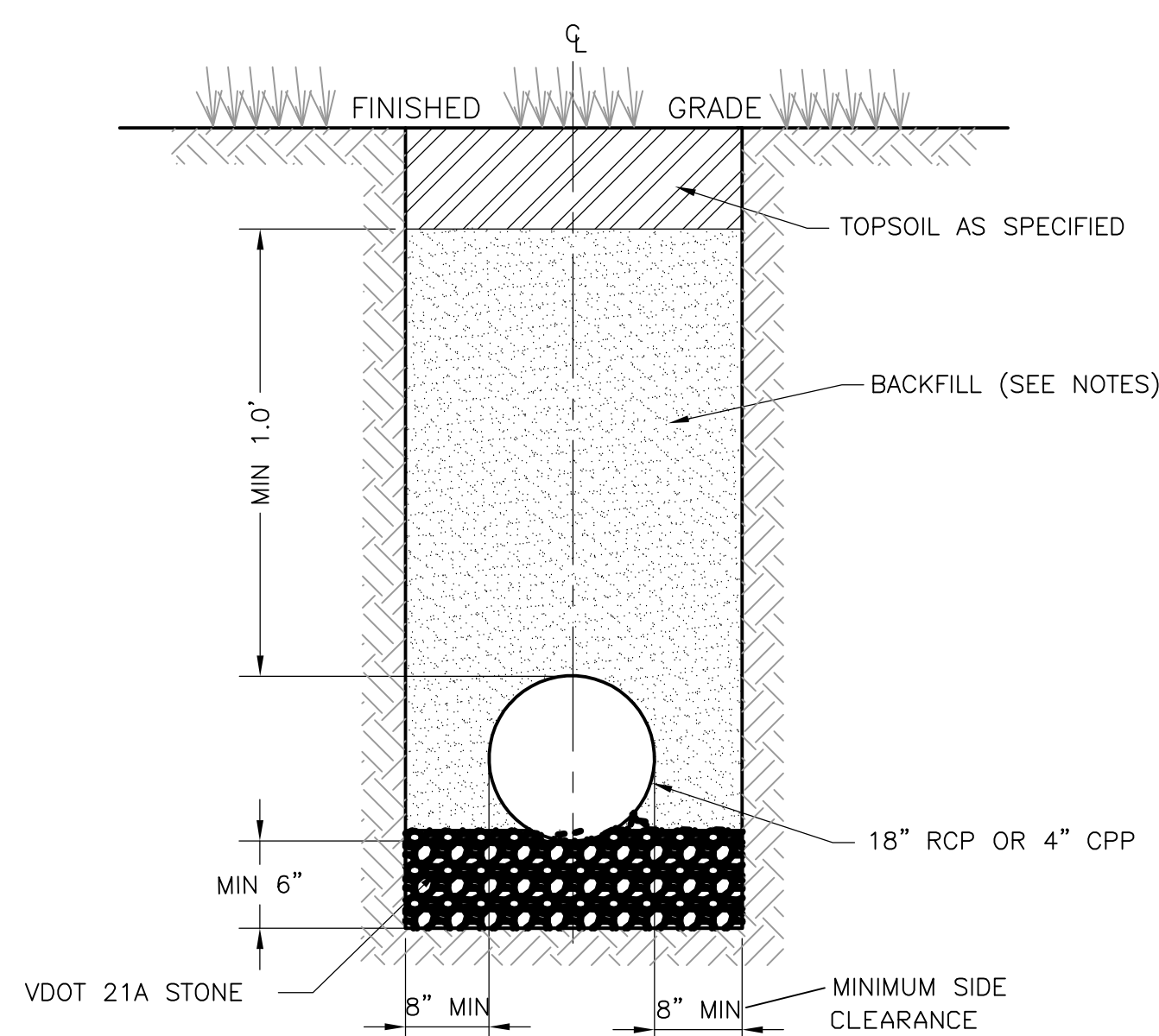
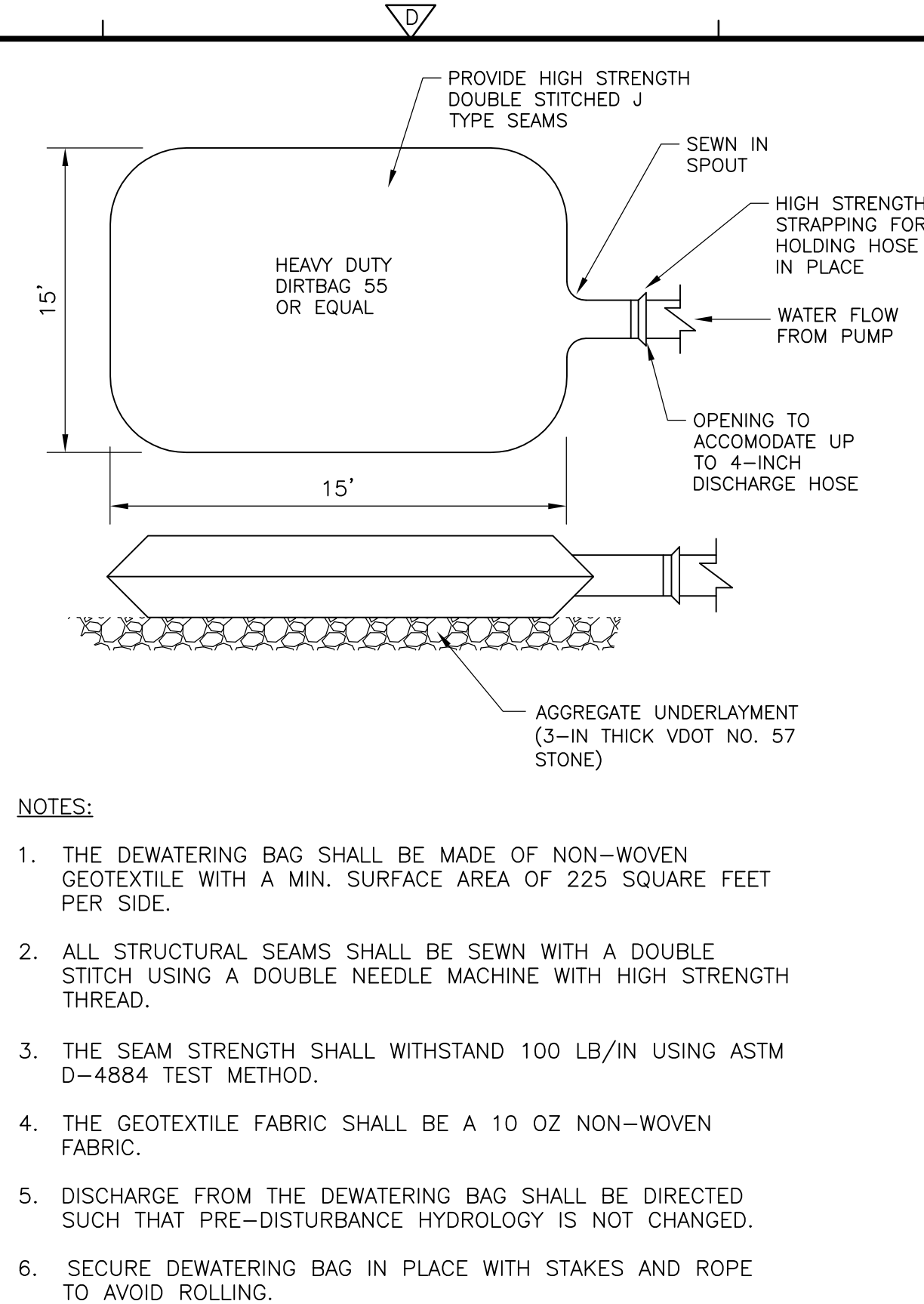
SHEET NO.

C-5

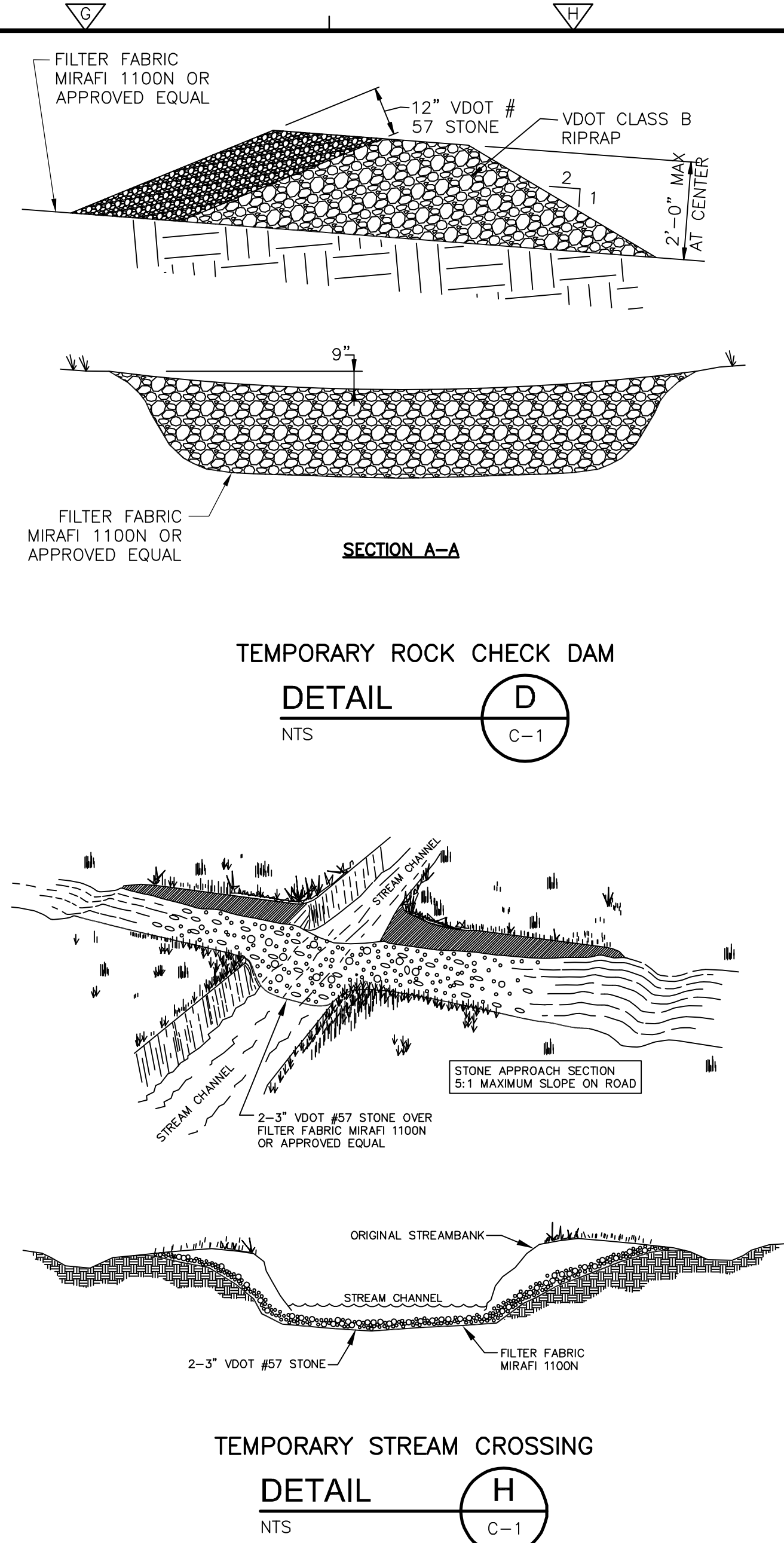
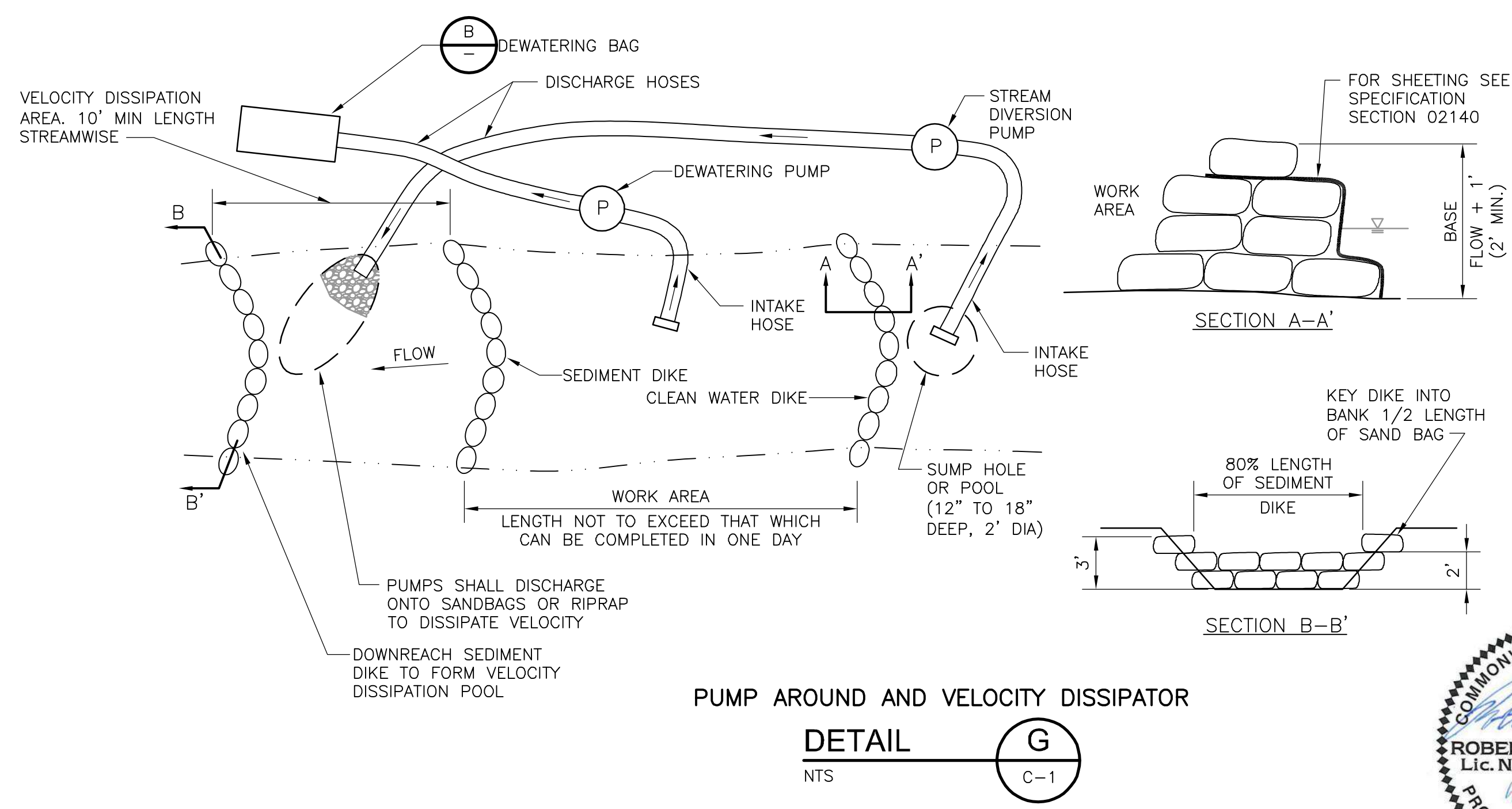
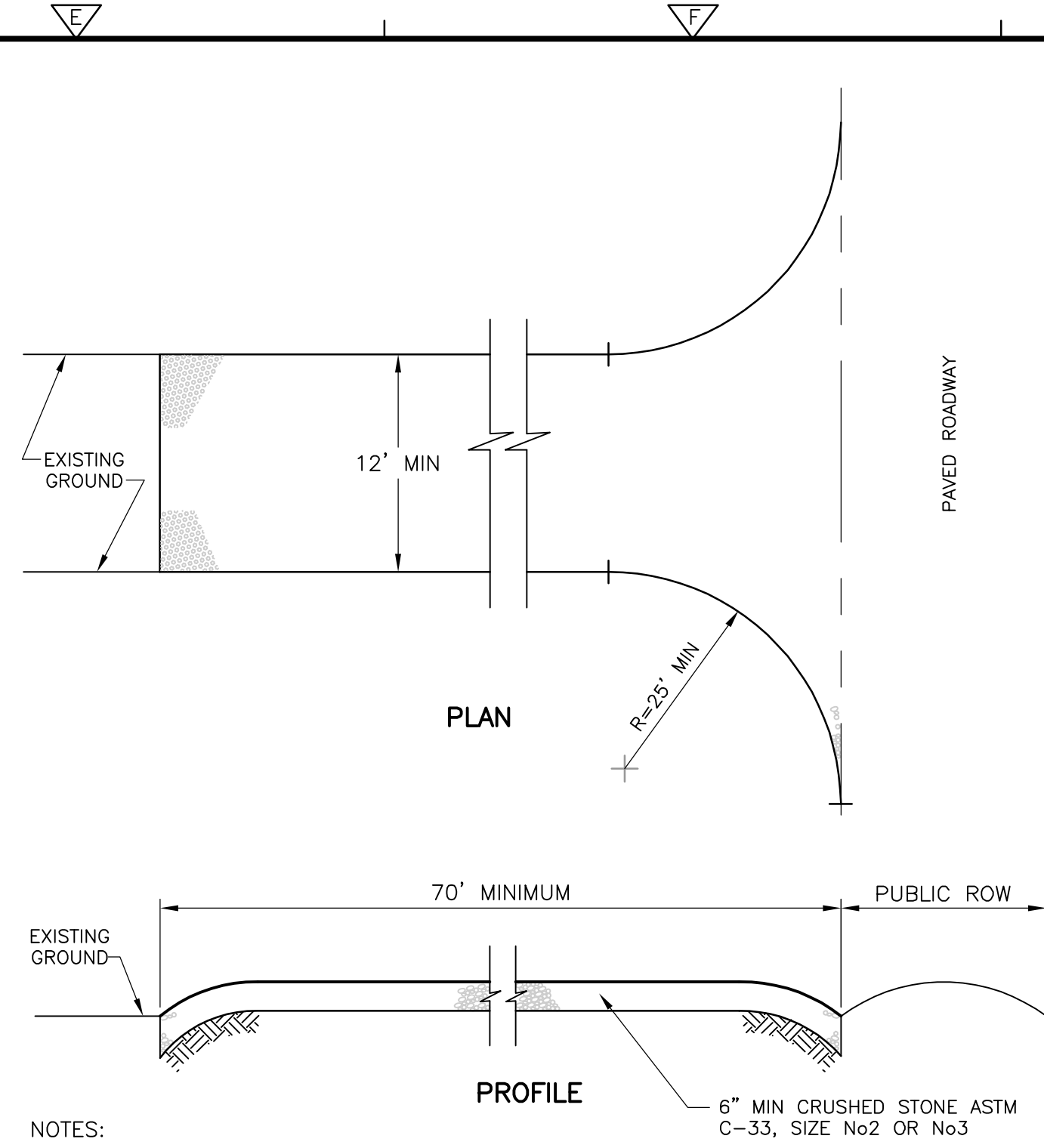
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- SEDIMENT FENCE NOTES:**
1. SEDIMENT FENCES SHALL BE POSITIONED AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO PREVENT OFF SITE MOVEMENT OF SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES AS DIRECTED BY THE ENGINEER.
 2. DIG TRENCH APPROXIMATELY 4_IN WIDE AND 8_IN DEEP ALONG PROPOSED FENCE LINES AND UPSLOPE FROM THE BARRIER.
 3. DRIVE STAKES, 8-FT ON CENTER (MAXIMUM) AT BACK EDGE OF TRENCHES. STAKES SHALL BE DRIVEN 2-FT (MINIMUM) INTO GROUND.
 4. HANG FILTER FABRIC ON POSTS CARRYING TO BOTTOM OF TRENCH WITH 12_IN OF FABRIC LAID ACROSS BOTTOM AND SIDE OF TRENCH. STRETCH FABRIC FAIRLY TAUT ALONG FENCE LENGTH AND MAINTAIN SECURE BOTH WAYS.
 5. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST.
 6. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHALL BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
 7. BACKFILL TRENCH WITH EXCAVATED MATERIAL AND TAMP THOROUGHLY.
 8. INSTALL PRE-FABRICATED SILT FENCE ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
 9. THE HEIGHT OF THE SEDIMENT FENCE SHALL NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE.
 10. THE FABRIC SHALL BE CONSTRUCTED FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
 11. SEDIMENT FENCE SHALL NOT BE ATTACHED TO TREES.
 12. END OF SILT FENCE SHALL BE TURNED UPHILL.



- DETAIL NOTES:**
1. BACKFILL MATERIAL SHALL BE SELECT MATERIAL, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 207, TYPE I AND 20 CBR COMPACTION.
 2. BEDDING SHALL IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 208.
 3. BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR (ASTM D-693).



REV. NO.	DATE	DRWN	CHKD	REMARKS

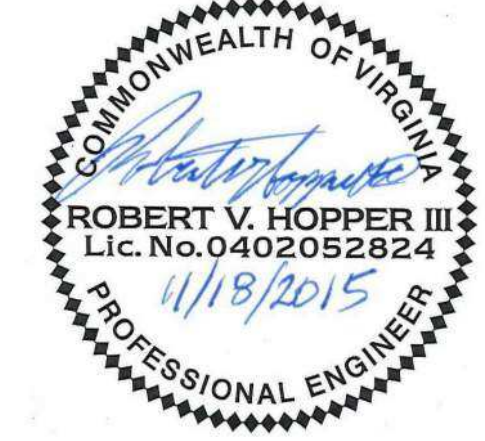
DESIGNED BY:	R. HOPPER
DRAWN BY:	M. KOSKI
SHEET CHK'D BY:	M. BROKAW
CROSS CHK'D BY:	
APPROVED BY:	R. HOPPER
DATE:	JUNE 2015

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5700 Thurston Avenue, Suite 102
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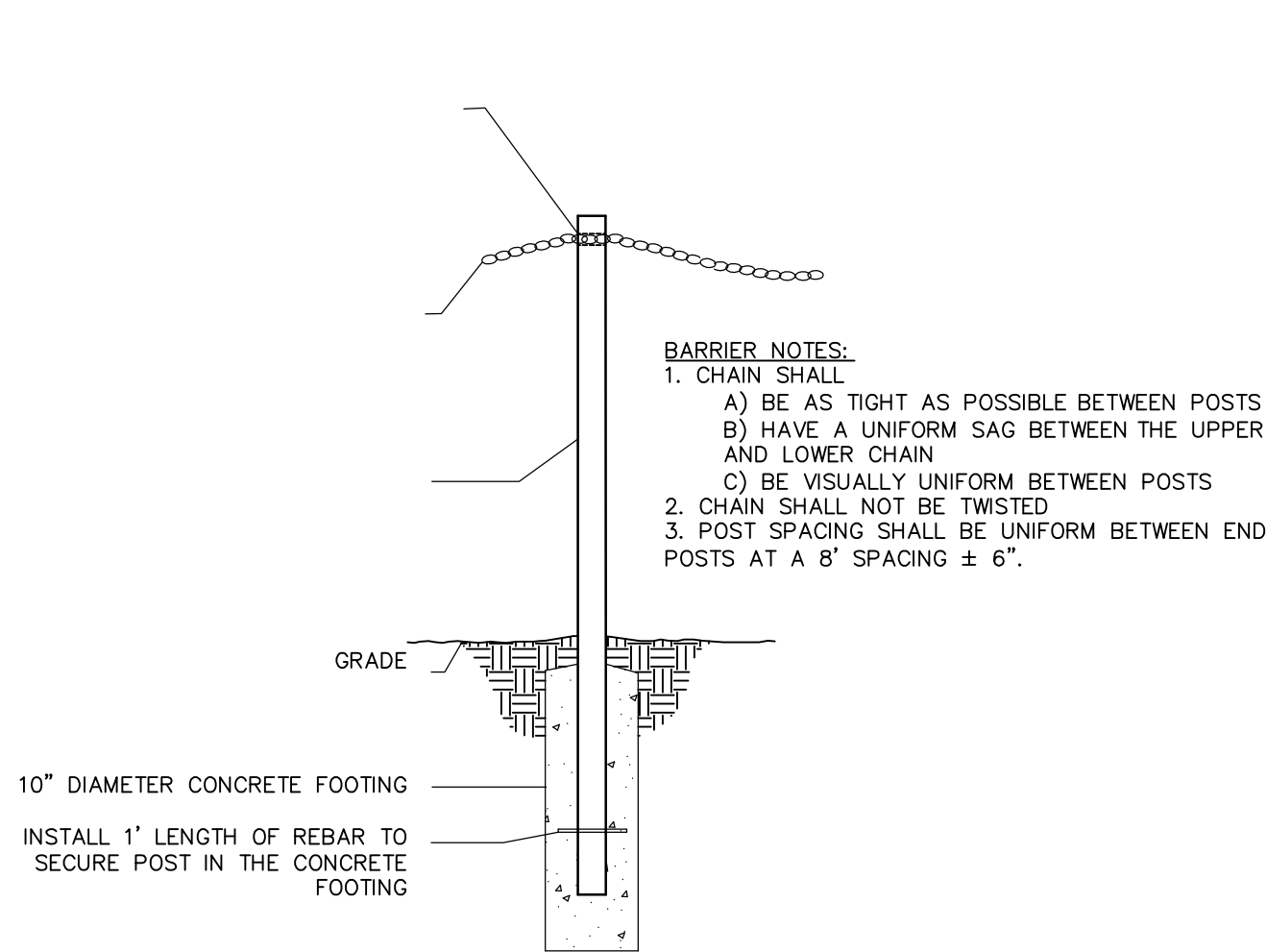
CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

EROSION AND SEDIMENTATION
CONTROL DETAILS

PROJECT NO.	1589-100395
FILE NAME:	C00651D1.DWG
SHEET NO.	C-6



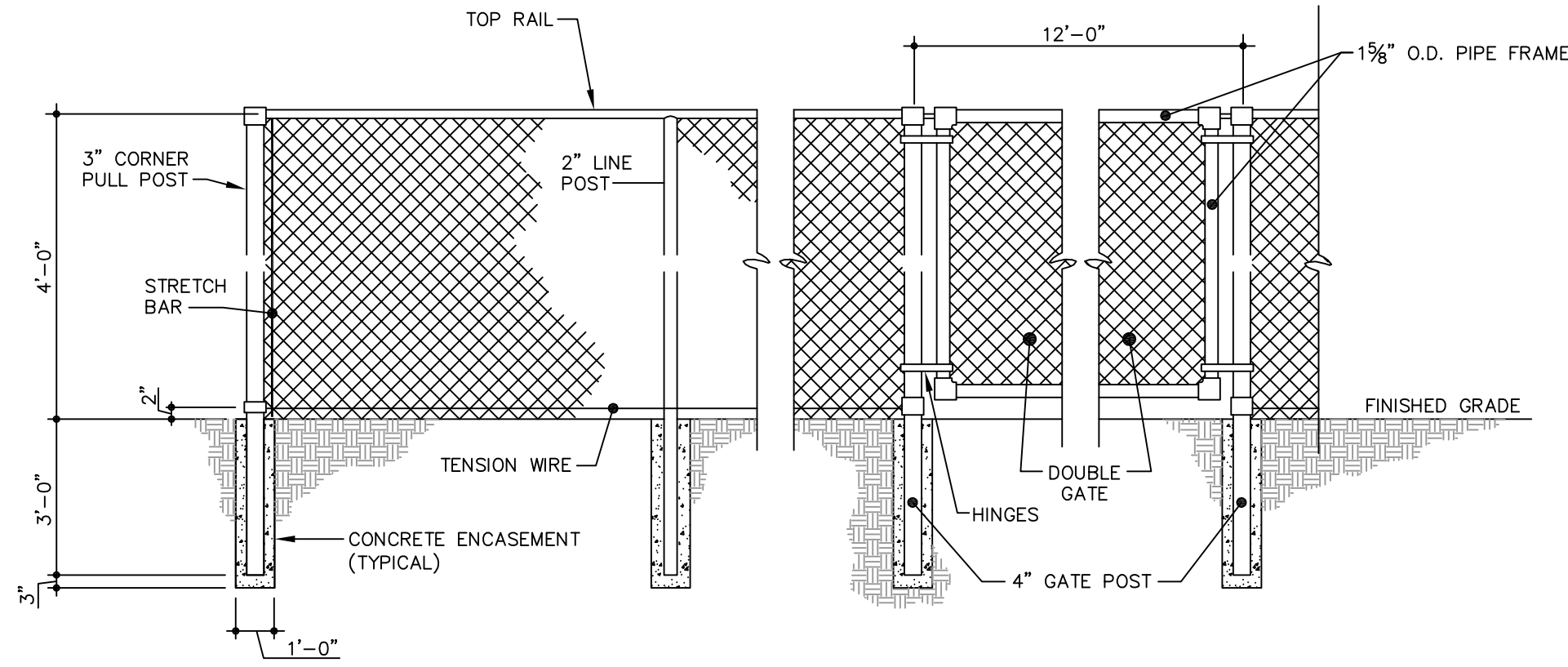
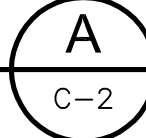
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WOOD POST AND CHAIN BARRIER

DETAIL

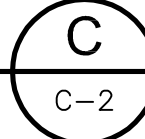
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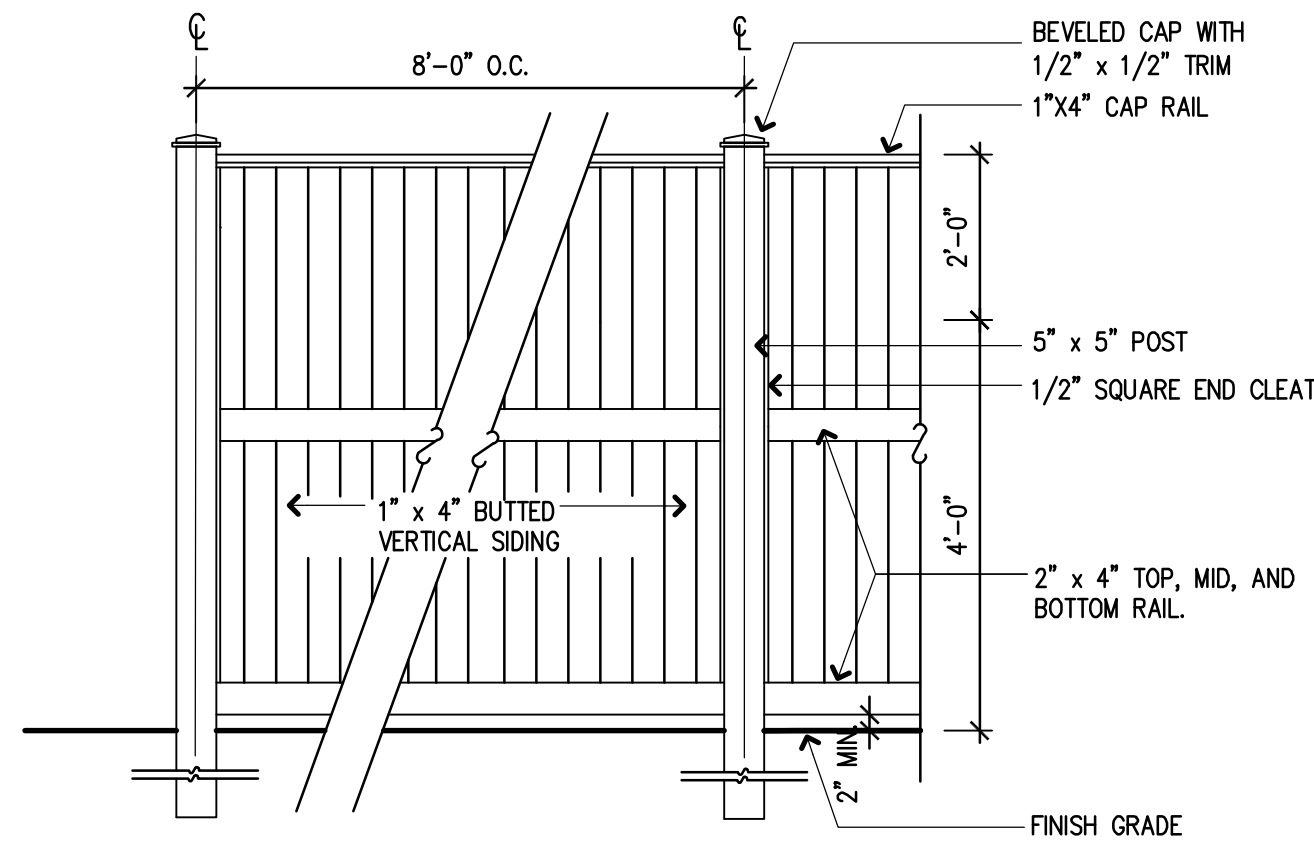
4 FT TALL CHAIN LINK FENCE AND GATE

DETAIL

NTS



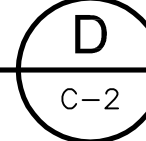
WOOD BOARD FENCE NOTES:
1. WOOD BOARD FENCE SHALL MATCH EXISTING IN ALL DIMENSIONS AND CHARACTERISTICS. THIS DETAIL IS ONLY AN EXAMPLE OF THE DIMENSIONS TO BE MEASURED ON THE EXISTING FENCE.



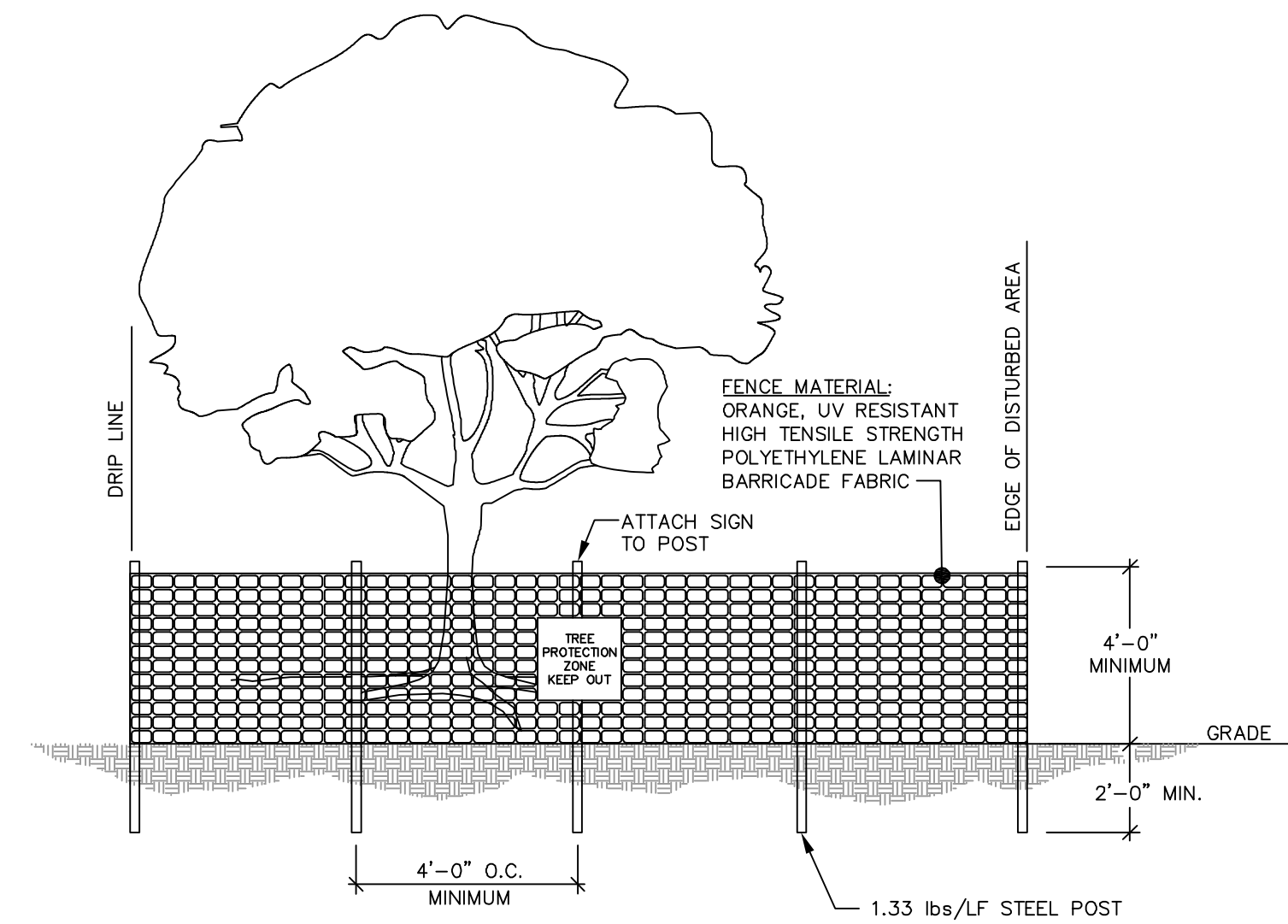
4 FT TALL WOOD BOARD FENCE

DETAIL

NTS



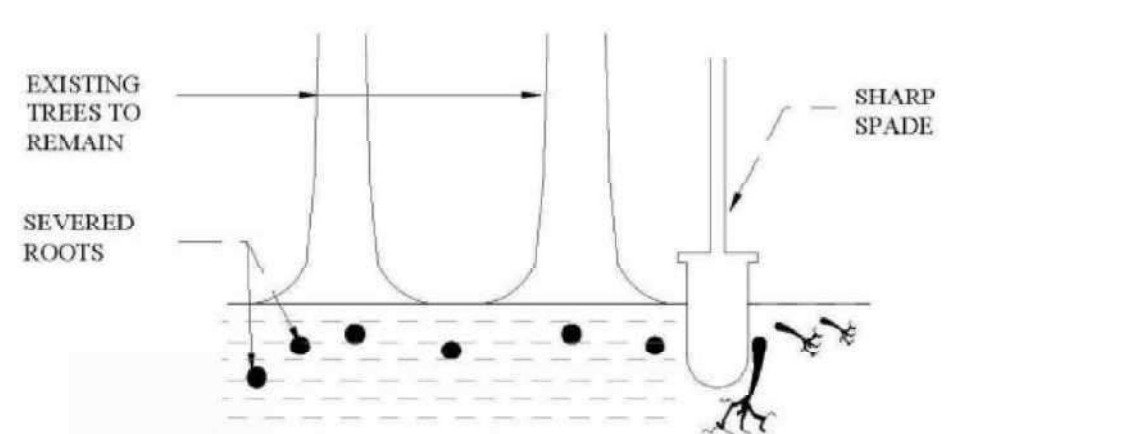
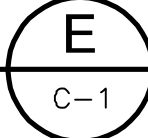
- TREE PROTECTION FENCE NOTES:
1. ALL PLANTS DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING, AS ILLUSTRATED.
 2. INSTALL TREE PROTECTION FENCE AT TREE DRIP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 3. SPACE TREE PROTECTION ZONE SIGNS A MINIMUM OF ONE EVERY 300 FEET. THE SIZE OF EACH SIGN MUST BE A MINIMUM OF 2' x 2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE. THE SIGN MUST CONTAIN THE FOLLOWING LANGUAGE IN BOTH ENGLISH & SPANISH: "TREE PROTECTION ZONE, KEEP OUT".
 3. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
 4. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.



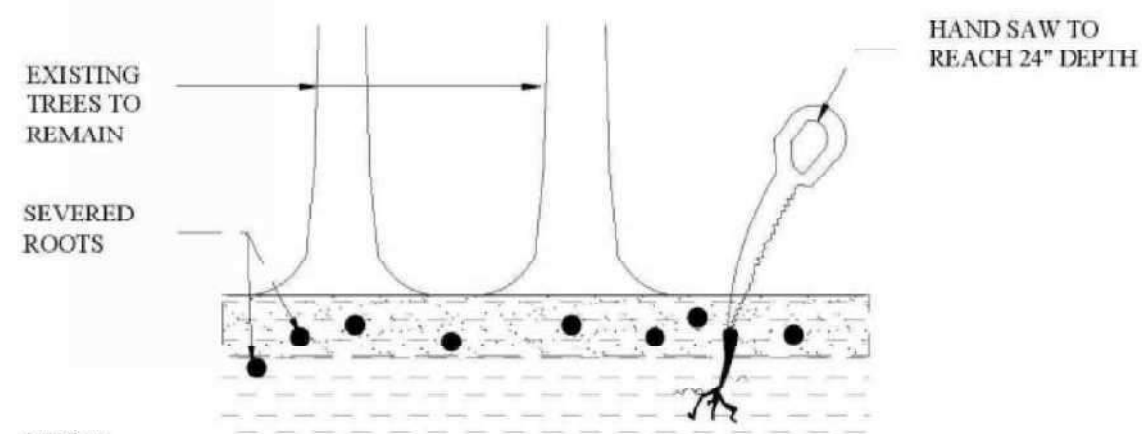
TREE PROTECTION

DETAIL

NTS



STEP #1
PRUNE ROOTS LESS THAN 2" WITH SHARP SPADE OR PRUNING SAW.
ROOTS 2" OR LARGER TO BE PROTECTED AND LEFT UNDISTURBED.



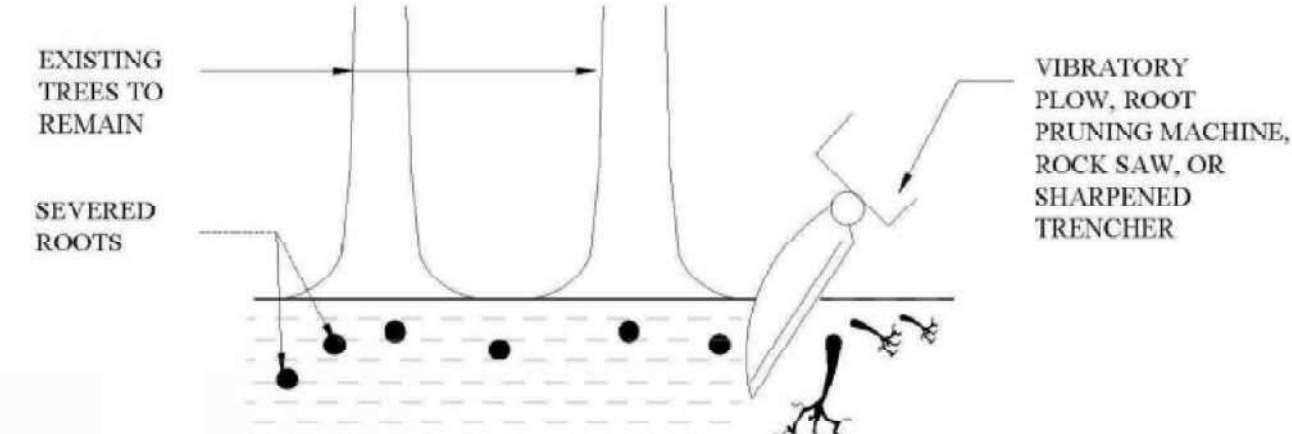
STEP #1
PRUNE ROOTS LESS THAN 2" WITH SHARP SPADE OR PRUNING SAW.
ROOTS 2" OR LARGER TO BE PROTECTED AND LEFT UNDISTURBED.

STEP #2
PRIOR TO BACKFILLING TRENCH, CUT ALL ROOT STUBS WITH SHARP
HAND SAW TO EDGE OF TRENCH.

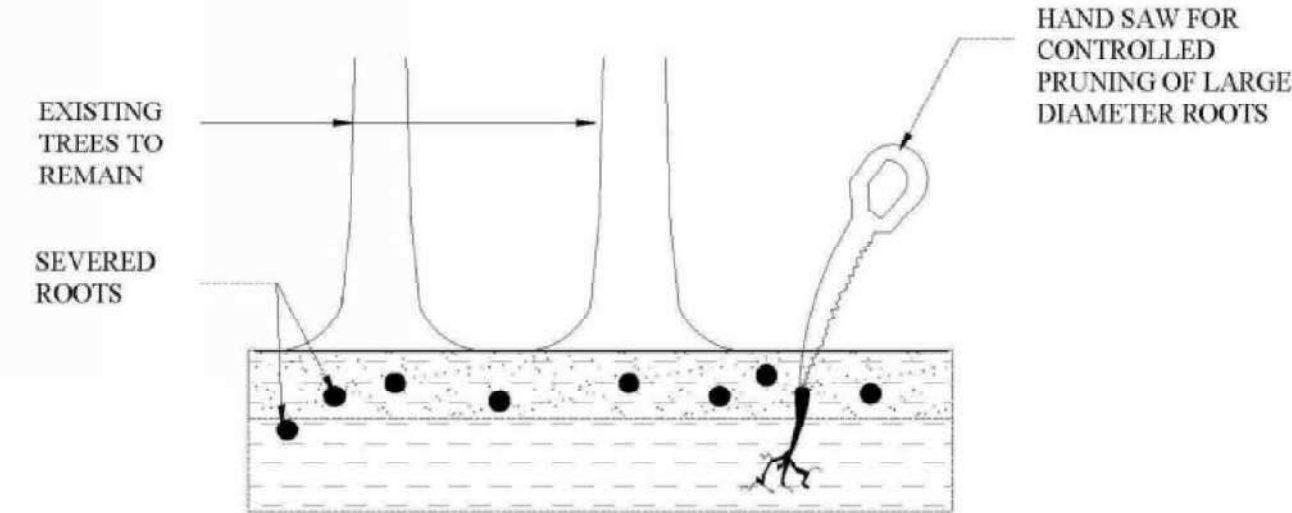
ROOT PRUNE HAND



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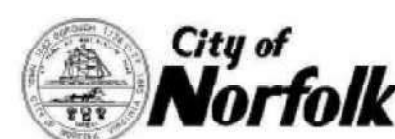


STEP #1
ROOT PRUNE WITH VIBRATORY PLOW,
ROOT PRUNING MACHINE, ROCK SAW, OR
SHARPENED TRENCHER.



STEP #2
HAND PRUNE ROOTS THAT REMAIN
FOLLOWING MECHANICAL PRUNING

ROOT PRUNE MECHANICAL

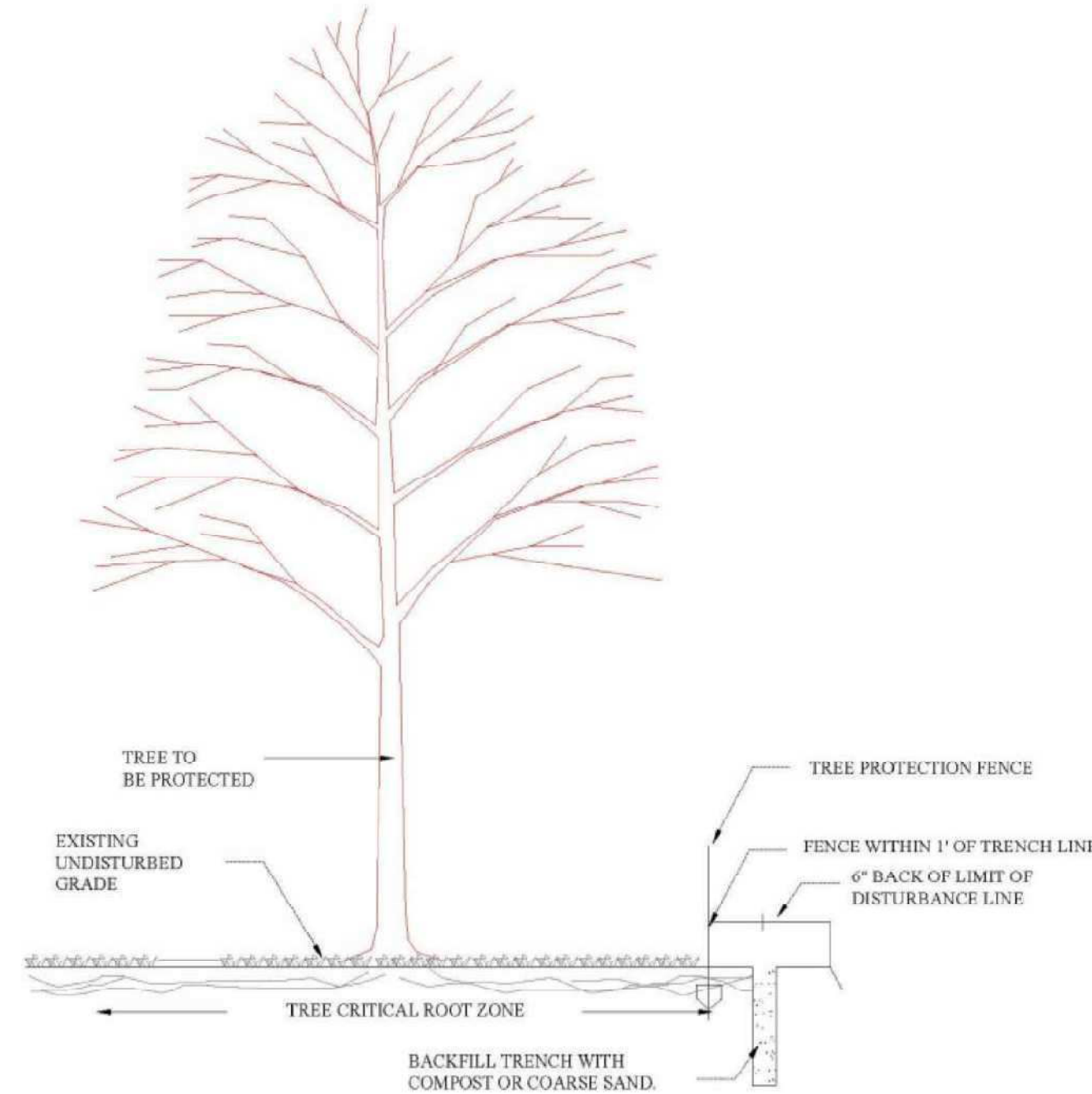
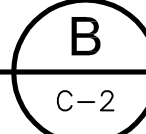


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TREE ROOT PRUNING

DETAIL

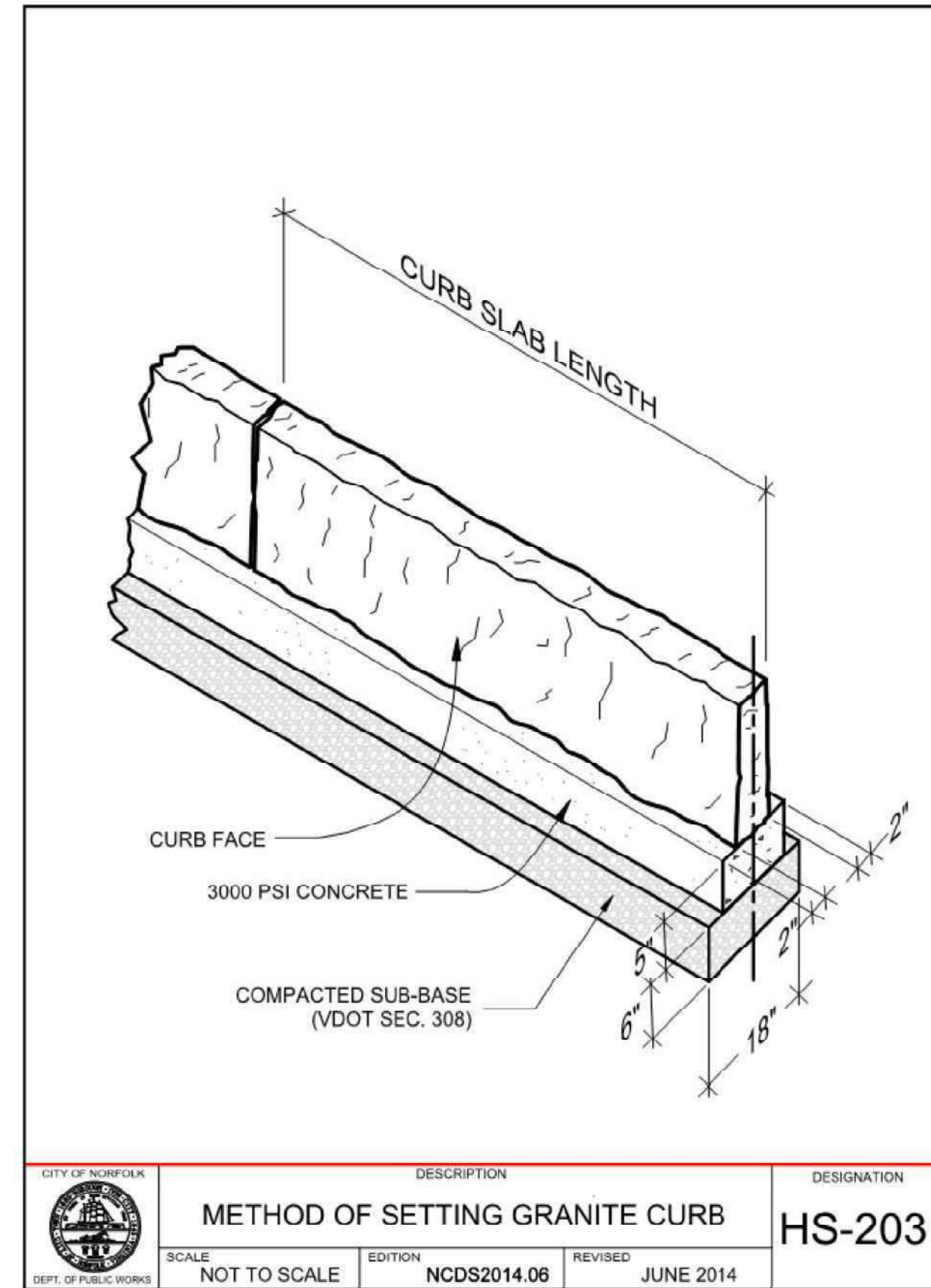
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ROOT PRUNING



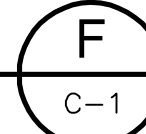
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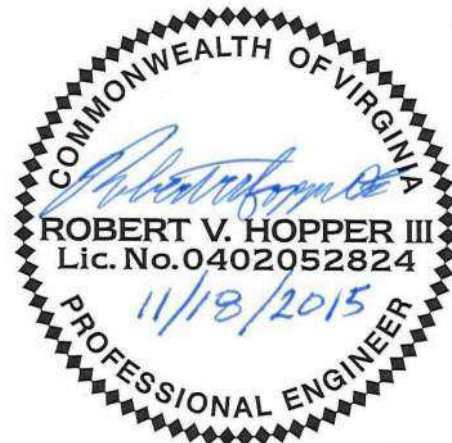
GRANITE CURB REPLACEMENT

DETAIL

NTS



DESCRIPTION	DESIGNATION
METHOD OF SETTING GRANITE CURB	HS-203
SCALE: NOT TO SCALE	EDITION: NCDS2014.06
REVISD: JUNE 2014	



REV. NO.	DATE	DRWN	CHKD	REMARKS

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SHEET CHK'D BY:	Y. BANGALOME
CROSS CHK'D BY:	
APPROVED BY:	R. HOPPER
DATE:	JUNE 2015



CITY OF NORFOLK, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
PARKDALE CHANNEL IMPROVEMENTS

DETAILS II

PROJECT NO. 1589-100395
FILE NAME: C007STD1.DWG

SHEET NO.

C-7